INTERMEDIATE COURSE

GROUP – II

REVISION TEST PAPERS

JANUARY, 2027

BOARD OF STUDIES (ACADEMIC)

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

(Set up by an Act of Parliament)

New Delhi

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Edition	:	October, 2026
Website	:	www.icai.org
E-mail	:	bosnoida@icai.in
Department/Committee	:	Board of Studies (Academic)
Price	:	
ISBN No.	:	
Published by	:	The Publication Directorate on behalf of The Institute of Chartered Accountants of India, ICAI Bhawan, Post Box No. 7100, Indraprastha Marg, New Delhi- 110 002, India. Typeset and designed at Board of Studies(A).
Printed by	:	

Contents

Page Nos.

Objective & Approach.....*i – viii*

Objective of Revision Test Paper..... *i*

Planning & Preparing for Examination..... *ii*

Subject-wise Applicability..... *iii*

Paper-wise RTPs

Paper 4: Cost and Management Accounting.....1 – 50

Paper 5: Auditing and Ethics .....51 – 78

Paper 6: Financial Management and Strategic Management ..... 79 – 120

REVISION TEST PAPER, JANUARY, 2027– OBJECTIVE & APPROACH

(Students are advised to go through the following paragraphs carefully to derive maximum benefit out of this RTP)

I. Objective of Revision Test Paper

Revision Test Papers are one among the many educational inputs provided by the Board of Studies (Academic) to its students. Popularly referred to as RTP by the students, it is one of the very old publications of the BOS(A) whose significance and relevance from the examination perspective has stood the test of time.

The primary objectives of the RTP are:

- To help students get an insight of their preparedness for the forthcoming examination;
- To update them on the latest developments relevant for the forthcoming examination in select subjects;
- To enhance the confidence level of the students adequately.

Students must bear in mind that the RTP contains a variety of questions based on different topics of the syllabi and thus a comprehensive study of the entire syllabus is a pre-requisite before answering the questions of the RTP. In other words, in order to derive maximum benefit out of the RTPs, it is advised that before proceeding to solve the questions given in the RTP, students ought to have thoroughly read the Study Materials and Statutory Update, wherever applicable.

The topics on which the questions are set herein have been carefully selected and meticulous attention has been paid in framing different types of questions. Detailed answers are provided to enable the students to do a self-assessment and have a focused approach for effective preparation.

Live Virtual Classes by renowned subject experts conducted for the students of Foundation, Intermediate and Final levels provide the students much required support in preparing for their exams conveniently at home as these classes can be accessed live or viewed later as recorded lectures through hand-held devices such as smart phones, laptops, I-pads, tablets, etc. anytime anywhere. Further,

students are advised to attempt the Multiple-Choice Questions (MCQs) at MCQ Paper Practice Portal which is a holistic platform for self-assessment within the stipulated timeframe.

Students are welcome to send their suggestions for fine tuning the RTP to the Joint Director, Board of Studies (Academic), The Institute of Chartered Accountants of India, A-29, Sector-62, Noida 201309 (Uttar Pradesh). RTP is also available on BOS Knowledge Portal at *https://boslive.icai.org* for downloading.

II. Planning and preparing for examination

Ideally, when the RTP reaches your hand, you must have finished reading the relevant Study Materials of all the subjects available at the BoS Knowledge Portal. Get a good grasp of the concepts/ provisions/ amendments/ cases discussed therein.

After reading the Study Materials alongwith Statutory Update thoroughly, then, proceed to solve the questions given in the RTP on your own. RTP is an effective tool to revise and refresh the concepts and provisions discussed in the Study Material. RTPs are provided to you to help you assess your level of preparation. Hence you must solve the questions given therein on your own and thereafter compare your answers with the answers given therein.

Examination tips

How well a student fares in the examination depends upon the level and depth of his preparation. However, there are certain important points which can help a student better his performance in the examination. These useful tips are given below:

- Reach the examination hall well in time.
- As soon as you get the question paper, read it carefully and thoroughly. You are given separate 15 minutes for reading the question paper.
- Plan your time so that appropriate time is awarded for each question.
- First impression is the last impression. The question which you can answer in the best manner should be attempted first.

- Always attempt to do all questions. Therefore, it is important that you must finish each question within allocated time. Keep sometime for checking the answers as well.
- Read the question carefully more than once before starting the answer to understand very clearly as to what is required.
- Answer all parts of a question one after the other; do not answer different parts of the same question at different places.
- Write in a neat and legible hand-writing.
- Always be concise and write to the point and do not try to fill pages unnecessarily.
- There must be logical expression of the answer.
- In case a question is not clear, you may state your assumptions and then answer the question.
- Check your answers carefully and underline important points before leaving the examination hall.
- In case of case scenario based MCQs, read the facts given in the case attentively. Also, read each MCQ based thereon and all the options carefully, before choosing the correct answer.

III. Subject-wise Applicability

PAPER – 4: COST AND MANAGEMENT ACCOUNTING

The Revision Test Paper (RTP) of Cost and Management Accounting comprises of two Divisions of total 18 questions: Division A (Case scenario and caselet based MCQs) which contains 7 case scenarios and caselets and Division B (Descriptive questions) which contains 11 questions for full coverage of the syllabus. Theoretical questions along with computational problems have also been incorporated so that you are able to give emphasis to the theoretical portion of the syllabus as well. Since this paper's inclination is more towards numerical-oriented questions which involve mathematical calculations, therefore, it is very important that you have thoroughly studied the theoretical aspects of the subject and are also clear about the concepts and logic behind the mathematical workings and formulae.

A summary of the questions both theoretical and computational has been given for your reference:

Q. No.	Topic	About the Problem
Division A		
1.	Activity Based Costing	Customer profitability analysis, customer-level costs, cost of goods sold and operating income.
2.	Process Costing	Calculation of cost per kg, abnormal gain/loss and selling price.
3.	Employee Cost	Calculation of earnings under Halsey incentive scheme.
4.	Cost Sheet	Calculation of cost of goods sold.
5.	Joint product and By product	Apportionment of fixed cost using contribution margin method.
6.	Overheads	Calculation of service department expenses using simultaneous equation method.
7.	Marginal Costing	Calculation of break-even point, P/V ratio and margin of safety.
Division B		
8.	Material Cost	Calculation of re-ordering level, maximum level, minimum level and danger level.
9.	Employee Cost and Direct Expenses	Calculation of labour cost chargeable to job and overheads under different overtime situations.
10.	Overheads	Preparation of cost distribution and re-distribution of service department expenses (simultaneous equation, trial and error and repeated distribution methods).
11.	Cost Sheet	Preparation of cost statement showing elements of cost and profit.

12.	Cost Accounting System	Preparation of Profit & Loss Account, cost sheet and Reconciliation Statement.
13.	Joint product and By product	Calculation of profit after further processing and decision to sell at separation point.
14.	Service Costing	Calculation of bus fare per passenger.
15.	Standard Costing	Calculation of material, variable overhead and labour variances.
16.	Marginal Costing	Calculation of break-even sales and equal-profit sales level for two machines.
17.	Budget and Budgetary Control	Preparation of production and purchase budgets, EOQ and quantity available for production.
18(a)	Budget and Budgetary Control	Advantages of Budgetary Control System.
18(b)	Activity Based Costing	Cost drivers for the cost pools.
18(c)	Methods of Costing	Identification of method of costing for given cases.
18(d)	Introduction to cost and management accounting	Financial expenses included in Financial Accounts only.

PAPER – 5: AUDITING AND ETHICS

The Revisionary Test Paper (RTP) is a tool to refresh your knowledge which you have acquired while doing your conceptual study from Study Material and other modes of knowledge like BoS Live Learning Classes, Webinars, Saransh – Last Mile Referencer, Case Scenarios Booklet, Model Test Papers, Students' Journal, Bare Acts etc.

RTP of Auditing and Ethics for January 2027 comprises twenty questions, including case scenario-based multiple-choice questions, independent multiple choice questions, and descriptive questions. These questions cover the entire syllabus, which is divided into eleven chapters as discussed in the study material.

These 20 questions are taken from different topics like Nature, Objective and Scope of Audit, Audit Strategy, Audit Planning and Audit Program,

Risk Assessment and Internal Control, Audit Evidence, Audit of Items of Financial Statements, Audit Documentation, Completion and Review, Audit Report, Special Features of Audit of Different Type of Entities, Audit of Banks and Ethics and Terms of Audit Engagements. The chapter's name is clearly indicated before each question. The questions in the RTP have been arranged in the same sequence as prescribed in the study material to facilitate easy revision by the students. An attempt has been made to cover the syllabus comprehensively.

PAPER – 6: FINANCIAL MANAGEMENT AND STRATEGIC MANAGEMENT

Section – A: Financial Management

The Revision Test Paper (RTP) of Financial Management comprises of two Divisions of total 12 questions: Division A (Case scenario based MCQs) which contains 1 case scenario and 2 caselets and Division B (Descriptive questions) which contains 9 questions for full coverage of the syllabus. Theoretical questions along with computational problems have also been incorporated so that you are able to give emphasis to the theoretical portion of the syllabus as well. Since this paper's inclination is more towards numerical-oriented questions which involve mathematical calculations, therefore, it is very important that you have thoroughly studied the theoretical aspects of the subject and are also clear about the concepts and logic behind the mathematical workings and formulae.

A summary of the questions both theoretical and computational has been given for your reference:

Q. No.	Topic	About the Problem
Division A		
1.	Cost of Capital, Capital Budgeting and Leverage	Case scenario: WACC, project-specific cost of equity and WACC, project cash flows and NPV, degree of operating and financial leverage.
2.	Leverage	Calculation of percentage change in EPS using combined leverage.

3.	Dividend Decision	Effect of change in payout ratio on market price per share (Gordon's model).
Division B		
4.	Ratio Analysis	Preparation of balance sheet and income statement, and calculation of ROE and ROCE.
5.	Cost of Capital	Calculation of specific costs, break points, MCC schedule and project selection.
6.	Capital Structure	Calculation of EPS under two financing plans, EBIT–EPS indifference point and financial break-even point.
7.	Leverage	Preparation of income statement, calculation of DOL, DFL, DCL, break-even point and margin of safety.
8.	Dividend Decision	Calculation of market price under Walter's and Gordon's models and optimum payout ratio.
9.	Capital Budgeting	Machine replacement decision, net initial outlay, incremental cash flows, NPV and break-even saving.
10.	Working Capital	Preparation of projected statement of working capital requirement.
11(a)	Receivables Management	Evaluation of proposal to relax credit policy.
11(b)	Management of Payables	Calculation of annualised cost of forgoing cash discount.
11(c)	Cash Management	Calculation of optimum conversion size, number of conversions and total cost (Baumol model).
12(a)	Introduction to	Inter-relationship between

	Financial Management	investment, financing and dividend decisions.
12(b)	Debt Securitisation	Meaning and process of debt securitisation.
12(c)	Capital Budgeting	Concept of discounted payback period.

Section – B: Strategic Management

The Revision Test Paper on the subject of Strategic Management for the January 2027 examination contains sixteen questions. The questions have been selected from all the sections/chapters uniformly to cover whole syllabus. Questions are based on different skill levels, i.e., "Comprehension & Knowledge" as well as "Analysis & Application".

The questions included are of different categories – multiple choice questions based on case scenario and application based multiple choice questions, distinguish between, short notes, descriptive and questions based on practical scenarios. The first question contains multiple choice questions based on case scenario are subdivided into five different parts. Questions from two to six are application based multiple choice questions. All multiple-choice questions are given with four alternatives and the student has to opt for the correct option. Subsequently, ten different questions have been included to cover all the five chapters of the syllabus. Chapter names have been mentioned before questions. A descriptive question based on practical scenario has been included from each section. Another descriptive question has also been included from each section of the syllabus.

The students should take up this Revision test paper as a tool to check their preparedness in the subject. Mere reading of Revision Test Paper will not be helpful. To properly self-assess the preparation in the subject, students must attempt the questions on their own. Compare your answers with the suggested answers and hints given to assess the level of preparation and identify areas where more focus is required. Then you may work on these areas to improve the quality of answers that you write.

Work hard and perform well in the examination!

PAPER – 4:
COST AND MANAGEMENT ACCOUNTING



QUESTIONS

PART I - Case Scenario based MCQs

Case Scenarios

1. Kaveri Consumer Durables Limited (KCDL) is a Pune-based trading and distribution company incorporated in the year 2008 by a group of first-generation entrepreneurs. The company does not undertake any manufacturing activity; it acts as the authorised regional distributor for Western Maharashtra of a leading national brand of home appliances. KCDL operates two warehouses at Chakan and Kolhapur, a fleet of 18 delivery vehicles and a field sales team of 25 executives who regularly visit retail outlets for taking orders and servicing their accounts.

   The flagship product of the company is the 'CoolBreeze 1.5 Ton 5-Star Inverter Split AC', an energy-efficient model which contributes nearly 70% of the company's turnover. KCDL buys the CoolBreeze AC from the manufacturer at ₹ 16,200 per unit and sells it to multi-brand retail chains at a listed price of ₹ 19,440 per unit.

   Owing to rising summer temperatures and growing awareness about energy-efficient appliances, the demand for inverter air-conditioners has increased sharply. At the same time, competition among retail chains has intensified and large retailers have started demanding higher price discounts, frequent small-lot deliveries, additional sales visits and urgent (expedited) deliveries during the peak season. The Chief Financial Officer (CFO) of KCDL has observed that although the sales volume has grown by

about 40% during the year, the overall profitability of the company has not increased proportionately. The CFO has, therefore, recommended that the traditional practice of evaluating customers only on the basis of sales volume be replaced by a customer profitability analysis.

Accordingly, the sales department of KCDL has decided to analyse the profitability of its four new retail customers, namely Sahyadri Electronics Mart (SEM), Deccan Home Appliances (DHA), Konkan Digital World (KDW) and Shivneri Retail Hub (SRH), using activity-based costing method. The data pertaining to these four customers are:

	Customers			
	SEM	**DHA**	**KDW**	**SRH**
Units sold	13,500	18,000	28,500	38,250
Actual Selling Price	₹ 19,440	₹ 19,116	₹ 17,820	₹ 17,496
Number of Purchase orders	15	25	30	30
Number of Customer visits	2	3	6	3
Number of deliveries	10	30	60	20
Kilometers travelled per delivery	20	6	5	30
Number of expedited deliveries	0	0	1	2

After a detailed analysis and computation, the following activities has been identified and respective cost has been calculated:

Activity	**Cost Driver Rate**
Order taking	₹ 13,500 per purchase order
Customer visits	₹ 10,800 per customer visit
Deliveries	₹ 22.50 per delivery Km travelled
Product handling	₹ 67.50 per unit sold
Expedited deliveries	₹ 40,500 per expedited delivery

You are required to compute the following different cost information for managerial decision making:

(i) How much cost on customer visits is incurred on Shivneri Retail Hub (SRH)?

(A) ₹ 21,600

(B) ₹ 32,400

(C) ₹ 64,800

(D) ₹ 10,800

(ii) What is the cost of goods sold for Konkan Digital World (KDW)?

(A) ₹ 21,87,00,000

(B) ₹ 29,16,00,000

(C) ₹ 46,17,00,000

(D) ₹ 61,96,50,000

(iii) How much is the cost of expediting deliveries for Shivneri Retail Hub (SRH)?

(A) ₹ 40,500

(B) ₹ 81,000

(C) ₹ 1,21,500

(D) ₹ 0

(iv) Compute the customer level operating activities costs of Sahyadri Electronics Mart (SEM)

(A) ₹ 15,88,950

(B) ₹ 4,37,29,200

(C) ₹ 11,39,850

(D) ₹ 4,64,58,225

(v) Compute the customer-level operating income of Deccan Home Appliances (DHA) and Shivneri Retail Hub (SRH) respectively.

(A) ₹ 4,26,00,150 & ₹ 4,37,29,200

(B) ₹ 5,08,99,050 & ₹ 4,64,58,225

(C) ₹ 4,37,29,200 & ₹ 5,08,99,050

(D) ₹ 4,64,58,225 & ₹ 5,08,99,050

2. Alpha Ltd. produces a product A, which passes through three processes: Process P, Process Q and Process R. The entire output of each process passes directly to the next process, and the output of Process R is transferred to the warehouse. The cost and output data for April 2026 are given below.

Particulars	Process P (₹)	Process Q (₹)	Process R (₹)
Direct Material	38,000	42,500	42,880
Direct Labour	30,000	40,000	50,000
Output transferred (kg)	9,000	8,200	7,300

Additional information:

- Production overheads of ₹90,000 were recovered as a percentage of direct labour.
- 10,000 kg of raw material @ ₹5 per kg was issued to Process P. There was no opening or closing stock of materials or work in process.
- Each process has a normal wastage of 10% of its input. Scrap value of wastage is ₹1 per kg.
- The company fixes the selling price of the end product so as to earn a profit of 25% on selling price.

Questions

Choose the correct option for each question.

(i) The cost per kg of output transferred from Process P to Process Q is:

(A) ₹14.05

(B) ₹15.50

(C) ₹15.61

(D) ₹13.95

(ii) In Process Q, the input is 9,000 kg, normal wastage is 900 kg and the actual output is 8,200 kg. This shows:

(A) Abnormal loss of 100 kg

(B) No abnormal loss or gain

(C) Abnormal gain of 100 kg

(D) Abnormal gain of 200 kg

(iii) The cost per kg of output of Process Q is:

(A) ₹27.90

(B) ₹28.00

(C) ₹30.73

(D) ₹31.00

(iv) In Process R, the abnormal loss and its value (at ₹52 per kg) are:

(A) 70 kg; ₹4,160

(B) 90 kg; ₹4,240

(C) 80 kg; ₹2,480

(D) 80 kg; ₹820

(v) If Alpha Ltd. wants a profit of 25% on selling price, the selling price per kg of the end product should be:

(A) ₹65.00

(B) ₹78.00

(C) ₹69.33

(D) ₹74.29

3. Sunrise Fabricators Ltd., a medium-sized engineering unit located in the Vadodara industrial belt, manufactures precision-machined components for the automotive and pump industries. The company employs a team of skilled turners, fitters and machine operators in its machine shop, and the management strongly believes in linking a part of employee remuneration to individual efficiency. Accordingly, it operates premium-bonus incentive schemes to reward workers who complete their jobs in less than the standard time set by the rate-setting department.

For its skilled workers, the company pays a guaranteed wage rate of ₹ 90 per hour. For a particular precision product, the rate-setting department has fixed a standard time of 4 hours per unit.

Mr. R, an experienced turner in the machine shop, is at present remunerated under the Rowan Incentive Plan. On the manufacture of this product during the period, Mr. R earned an effective hourly rate of ₹112.50.

As part of a periodic review of its incentive policy, the management wishes to compare the outcome under an alternative scheme. Had Mr. R been put on the Halsey Incentive Scheme (50%) instead, his total earnings and effective hourly rate respectively would be:

(A) ₹ 315 and ₹ 105

(B) ₹ 270 and ₹ 90

(C) ₹ 337.50 and ₹ 112.50

(D) ₹ 360 and ₹ 120

4. Sunrise Industries Ltd. is a manufacturing company engaged in the production of precision engineering components for the automobile and consumer-durable industries. The company operates a single manufacturing unit and follows an integrated cost accounting system under which material, labour and overhead costs are compiled every month.

The following information has been extracted from its cost records for the period from August 1 to August 31, 2026, on the basis of which the management wishes to ascertain the cost of goods sold for the month.

	On August 1 (₹)	**On August 31 (₹)**
Cost of raw materials	1,38,000	1,15,000
Cost of work-in-process	27,600	34,500
Cost of stock of finished goods	2,07,000	2,53,000
Purchase of raw materials during August 2026		11,04,000
Wages paid		5,52,000
Factory overheads		2,30,000
Administration overheads (related to production)		1,15,000
Sales		23,00,000

CALCULATE the Cost of Goods Sold for the month of August 2026.

(A) ₹ 19,02,100

(B) ₹ 19,71,100

(C) ₹ 20,17,100

(D) ₹ 20,63,100

5. Sunrise Agro Processing Ltd., Guntur, processes groundnuts through a single process. At the split-off point it yields two joint products: Groundnut Oil (P) and Groundnut Cake (Q). Sales are P: 400 kg @ ₹80 per kg and Q: 500 kg @ ₹40 per kg. Joint marginal cost is ₹31,200 and fixed cost is ₹15,600. Using the Contribution Margin Method, in what ratio will the fixed cost be apportioned between P and Q?

(A) 8 : 5

(B) 3 : 2

(C) 5 : 4

(D) 8 : 3

6. A manufacturing company has two production departments, Dept.-A and Dept.-B, and two service departments, Power House and Maintenance Department. The primary (departmental) expenses of the two service departments and the basis of their apportionment are given below:

Service departments' expenses

Particulars	**(₹)**
Power House	1,50,000
Maintenance Department	30,000
Total	**1,80,000**

The allocation basis is:

	Production Department		**Service Department**	
	A	**B**	**Power House**	**Maintenance Department**
Power House	60%	35%	-	5%
Maintenance Department	10%	40%	50%	-

Using the simultaneous equation method, the total of expenses of the Power House and the Maintenance Department (respectively), to be allocated to the production departments, will be:

(A) ₹ 1,50,000 and ₹ 30,000

(B) ₹ 1,65,000 and ₹ 37,500

(C) ₹ 1,69,231 and ₹ 38,462

(D) ₹ 38,462 and ₹ 1,69,231

7. You are given the following data for the year ended 31st March, 2026 of ABC Textiles Ltd:

Variable cost	9,62,400	60%
Fixed cost	4,81,200	30%
Net profit	1,60,400	10%
Sales	16,04,000	100%

Based on the above data, the Break-even point (in ₹), P/V ratio and Margin of safety (in ₹) respectively will be:

(A) ₹ 12,03,000; 40%; ₹ 4,01,000

(B) ₹ 4,81,200; 40%; ₹ 12,03,000

(C) ₹ 12,03,000; 60%; ₹ 4,01,000

(D) ₹ 4,01,000; 40%; ₹ 12,03,000

PART - II Descriptive Questions

Material Cost

8. Meghdoot Appliances Limited is a Pune-based manufacturer of energy-efficient BLDC (Brushless Direct Current) ceiling fans (specifically Component STX-165). With demand for the company's flagship fan range, the stores department has been directed by the management to re-fix the stock control levels for Component STX-165. On a review of the purchase and stores records of the company for the year 2025-26, the following particulars relating to the component were placed before the Cost Accountant.

During the year, the company expects to purchase 16,50,000 units of the component, the purchase price per unit inclusive of transportation cost being ₹ 165. Each purchase order placed on the vendor costs the company

₹ 13,200 by way of ordering cost, while the annual cost of storage is estimated at ₹ 33 per unit.

The remaining particulars relating to lead time and the rate of consumption of the component are set out below:

Details of lead time : Average – 10 days, Maximum – 15 days, Minimum – 5 days, and for emergency purchases – 4 days.

Rate of consumption : Average – 4,950 units per day,
Maximum – 6,600 units per day.

From the details given above, CALCULATE:

(i) Re-ordering level;

(ii) Maximum level;

(iii) Minimum level; and

(iv) Danger level.

Employee Cost and Direct Expenses

9. eX Precision Engineering Pvt. Ltd. operates a machine shop employing 35 workers, each working 8 hours per day including a 30-minute lunch break, worked for 160 days during a period of six months ended on 31st December, 2025. The lunch break is unpaid and is not treated as working time.

During this period, the total wages paid to these workers amounted to ₹ 2,52,000, which includes ₹ 30,000 paid as overtime premium and ₹ 12,000 paid as shift/production allowance — neither of which forms part of the basic wages. However, Dearness allowance and bonus of ₹ 42,000 and ₹ 21,000 respectively were paid at the end of the period.

The management of the company decided the overtime premium rates for the month of January 2026 as under:

Sundays and holidays	200% of basic wage rate
Before and after normal working hours	150% of basic wage rate

During the last six months (ended on 31st December, 2025), the following hours were worked:

Particulars	Hours
Normal time	39,375
Sundays and holidays	525
Before and after normal working hours	2,100
Total hours	**42,000**

During the month of January 2026, the factory worked on a job AK-9 in the following manner:

Particulars	Men hours
Normal working	1,680
Overtime on Sundays and holidays	140
Overtime before and after normal working	280
Total hours	**2,100**

DA and Bonus shall be included to arrive at basic wages.

You are required to CALCULATE the labour cost chargeable to job AK-9 and overheads in each of the following situations:

(i) Where overtime is worked regularly throughout the year as a matter of policy on account of shortage of workers.

(ii) Where overtime is worked irregularly to cope with the general production programme / to meet the requirements of production.

(iii) Where overtime is worked at the desire (request) of the customer to complete the job in time.

(iv) Where overtime is worked on account of abnormal conditions such as earthquake in the area.

Overheads

10. Overheads: Absorption Costing Method

Pretz Ltd. is a manufacturing company having two production departments, 'A' & 'B' and two service departments 'X' & 'Y'. The following is the budget for March, 2026:

	Total (₹)	A (₹)	B (₹)	X (₹)	Y (₹)
Direct material		2,00,000	4,00,000	4,00,000	2,00,000
Direct wages		10,00,000	4,00,000	2,00,000	4,00,000
Factory rent	9,00,000				
Power (Machine)	5,10,000				
Depreciation	2,00,000				
General Lighting	3,00,000				
Perquisites	4,00,000				
Additional information:					
Area (Sq. ft.)		500	250	250	500
Capital value of assets (₹ lakhs)		40	80	20	20
Light Points		10	20	10	10
Machine hours		1,000	2,000	1,000	1,000
Horse power of machines		50	40	15	25

A technical assessment of the apportionment of expenses of service departments is as under:

	A	B	X	Y
Service Dept. 'X' (%)	55	25	–	20
Service Dept. 'Y' (%)	60	35	5	–

You are required to:

(a) PREPARE a statement showing distribution of overheads to various departments.

(b) PREPARE a statement showing re-distribution of service departments expenses to production departments using-

(i) Simultaneous equation method

(ii) Trial and error method

(iii) Repeated Distribution Method.

Cost Sheet

11. Prateek LED Industries Limited ('Prateek LED' or 'the Company'), a Noida-based manufacturing concern, is engaged in the production of a single model of premium energy-efficient LED bulb. Operating from its integrated manufacturing facility in the Greater Noida Industrial Area, the Company supplies its product to leading electrical retail chains and to Government electrification programmes across northern India. The management follows a cost-plus pricing policy. The following information relates to the Company for the year ended 31st March, 2026:

Particulars	Amount (₹)
Raw Material Purchased	36,00,000
Freight Inwards	2% on Raw Material Purchased
Packaging Cost (primary)	13,50,000
Fee Paid to Independent Directors	22,50,000
Production bonus paid to factory workers	10% of Wages paid to factory workers
Job charges paid to job workers	1,84,500
Wages paid to factory workers	28,35,000
Salary paid to Supervisor	27,80,550
Salary paid to General Manager	55,80,000
Salary paid to Production Control Manager	32,40,000
Sale of Scrap generated during Manufacturing	2,25,000
Selling Overheads per unit	9
Expenses Paid for Quality Control check activities	19,35,000

Other information:

(i) The Factory Building was acquired at a cost price of ₹ 1,12,50,000 and stood at a written down value of ₹ 98,41,500 as on 1st April, 2025

(ii) The Plant and Machinery, having a cost price of ₹ 67,50,000, had a written down value of ₹ 52,02,000 as on 1st April, 2025

(iii) The Office Building, costing ₹ 1,80,00,000, carried a written down value of ₹ 1,62,00,000 as on 1st April, 2025

(iv) Depreciation on Factory Building, Plant and Machinery & Office Building is charged on the written down value method @ 10%, 15% and 10% respectively.

(v) Insurance cost of the Factory Building & Plant and Machinery is 2% each of its cost price with no insurance cover for Office Building.

Additional information:

(i) The value of raw materials held in stock was ₹ 15,30,000 as on 1st April, 2025 and ₹ 8,10,000 as on 31st March, 2026, whereas the value of work-in-progress was ₹ 24,75,000 as on 1st April, 2025 and ₹15,75,000 as on 31st March, 2026.

(ii) Stock of finished goods as on 1st April, 2025 was 80,000 units having a total cost of ₹ 36,00,000. The entire stock of opening finished goods is sold during the year and the closing stock is 70,000 units. During the period, 4,50,000 units were sold.

(iii) The Company wants a profit of 25% on cost of sales.

You are required to PREPARE a Cost Statement showing the various elements of cost and the profit earned for the year ended 31st March, 2026.

Cost Accounting Systems

12. Sahyadri Precision Components Limited, incorporated in 2016, operates a machining plant at Chakan near Pune and manufactures precision machined components for automobile original-equipment manufacturers. The company maintains its cost accounts and financial accounts as two separate sets of books. The following figures are available from the financial records of Sahyadri Precision Components Limited for the year ended 31st March, 2026.

During the year, the company sold 66,000 units and realised sales of ₹ 82,50,000. As per the financial records, the materials consumed during the year amounted to ₹ 33,00,000 and the wages paid stood at 50% of the materials consumed. The factory overheads, the administrative overheads (relating to production) and the selling & distribution overheads incurred for the year were ₹ 14,85,000, ₹ 8,58,000 and ₹5,94,000 respectively. The closing stock of finished goods at the year-end was 4,059 units, carried in the financial books at a value of ₹ 4,95,000.

The remaining figures extracted from the financial records of the company are given below:

	(₹)	(₹)
Work-in-Process:		
Materials	99,000	
Labour	66,000	
Factory overheads	66,000	2,31,000
Loss on the sale of Fixed Assets		6,60,000
Expenses relating to issue of shares		66,000

In the Costing records, factory overhead is charged at 100% of wages, administrative overhead 10% of factory cost and selling and distribution overhead at the rate of ₹ 10 per unit sold.

You are required to PREPARE the following:

Profit & Loss Account (financial books) for the year;

Cost Sheet showing the profit as per the cost records; and

Reconciliation Statement reconciling the profit as per cost records with the profit as per financial records.

Joint Product and By-Product

13. Satguru Oleochemicals Limited operates an integrated processing facility at Dahej, Gujarat, where a common crude feedstock is refined through a

single process up to the separation (split-off) point. The process simultaneously yields three joint products — Oleic Acid, Stearic Acid and Glycerine — all of which are measured in litres. Each joint product can either be sold in the open market at the separation point or be processed further into a higher-grade finished product. The company apportions its pre-separation (joint) costs over the three joint products on the basis of the weight (volume) of output of each product. The data relating to operations for a particular month are given below:

Cost incurred up to the separation point: ₹ 44,000

Particulars	**Oleic Acid**	**Stearic Acid**	**Glycerine**
Output (in litre)	100	70	80
Cost incurred after separation point (₹)	8,800	5,280	3,520
Selling price per litre (₹):			
After further processing	220	352	264
At pre-separation point (estimated)	110	308	198

Required:

(i) PREPARE a statement showing the profit or loss earned on each product after further processing, adopting the company's present method of apportioning the pre-separation cost.

(ii) Zenith Nutra LLP has approached the company with a proposal to purchase the entire monthly output of Stearic Acid at ₹ 330 per litre at the separation point — in which case Stearic Acid would not be processed further. ADVISE whether Satguru Oleochemicals Limited should accept this proposal and sell the entire output without further processing.

COMMENT, on purely financial considerations, whether the other two products also needs to be sold at the separation point or can be further processed.

Service Costing

14. Mr. PS owns a bus which runs according to the following schedule:

(i)	Delhi to Hisar and back, the same day	
	Distance covered:	160 km. one way
	Number of days run each month:	9
	Seating capacity occupied	90%.
(ii)	Delhi to Aligarh and back, the same day	
	Distance covered:	160 km. one way
	Number of days run each month:	12
	Seating capacity occupied	95%
(iii)	Delhi to Alwar and back, the same day	
	Distance covered:	170 km. one way
	Number of days run each month:	6
	Seating capacity occupied	100%
(iv)	Following are the other details:	
	Cost of the bus	₹ 15,00,000
	Salary of the Driver	₹ 30,000 p.m.
	Salary of the Conductor	₹ 26,000 p.m.
	Salary of the part-time Accountant	₹ 7,000 p.m.
	Insurance of the bus	₹ 6,000 p.a.
	Diesel consumption 5 km. per litre at	₹ 90 per litre
	Road tax	₹ 21,912 p.a.
	Lubricant oil	₹ 30 per 100 km.
	Permit fee	₹ 500 p.m.
	Repairs and maintenance	₹ 5,000 p.m.
	Depreciation of the bus	@ 30% p.a.
	Seating capacity of the bus	50 persons

Passenger tax is 20% of the total takings.

CALCULATE the bus fare to be charged from each passenger to earn a profit of 30% on total takings.

The fares are to be indicated per passenger for the journeys: (i) Delhi to Hisar (ii) Delhi to Aligarh and (iii) Delhi to Alwar.

Standard Costing

15. BabyMoon Ltd. uses standard costing system in manufacturing one of its product 'Baby Cap'. The details are as follows:

Direct Material 1 Meter @ ₹ 60 per meter	₹ 60
Direct Labour 2 hour @ ₹ 20 per hour	₹ 40
Variable overhead 2 hour @ ₹ 10 per hour	₹ 20
Total	₹ 120

During the month of August, 10,000 units of 'Baby Cap' were manufactured. Details are as follows:

Direct material consumed	11,400 meters	@	₹ 58 per meter	
Direct labour Hours	?	@	?	₹ 4,48,800
Variable overhead incurred				₹ 2,24,400

Variable overhead efficiency variance is ₹ 4,000 A. Variable overheads are based on Direct Labour Hours.

You are required to CALCULATE the following Variances:

(a) Material Variances- Material Cost Variance, Material Price Variance and Material Usage Variance.

(b) Variable Overheads variances- Variable overhead Cost Variance, Variable overhead Efficiency Variance and Variable overhead Expenditure Variance.

(c) Labour variances- Labour Cost Variance, Labour Rate Variance and Labour Efficiency Variance.

Marginal Costing

16. Meridian Precision Components Private Limited, an ISO 9001-certified auto-ancillary unit based in Pune (Maharashtra), supplies a critical precision-machined hydraulic valve spool (Component HV-900) to leading commercial-vehicle OEMs. To service a new long-term supply contract, the company has an option to buy any one of the two machines A or B to manufacture this unique industrial component HV-900. Each of the machines has the capacity to produce the same quality of component HV-900 and are almost identical except for the fact that they are being manufactured by different manufacturers. The specifications for each Machine are:

Machine A: It has the capacity to produce 50,000 components of HV-900 per annum, the fixed costs being ₹ 21,60,000 and could generate a profit of ₹ 32,40,000 on the sale of all the components produced.

Machine B: It is also having the equal capacity to produce the same number of components as that of Machine A per annum and all the components thus produced could be sold in the open market without any difficulty. Fixed cost of Machine B is ₹ 8,64,000 less than that of Machine A and yields a profit of ₹ 23,04,000 by selling all the components that are produced.

The selling price of each component of HV-900 is ₹ 1,440.

You are required to CALCULATE:

(i) break even sales in value for each machine.

(ii) sales levels in units where both the machines are equally profitable.

Budget & Budgetary Control

17. G Ltd. manufactures two products called 'M' and 'N'. Both products use a common raw material Z. The raw material Z is purchased @ `36 per kg from the market. The company has decided to review inventory management policies for the forthcoming year.

The following forecast information has been extracted from departmental estimates for the year ended 31st March 2026 (the budget period):

	Product M	Product N
Sales (units)	28,000	13,000
Finished goods stock increase by year-end	320	160
Post-production rejection rate (%)	4	6
Material Z usage (per completed unit, net of wastage)	5 kg	6 kg
Material Z wastage (%)	10	5

Additional information:

- Usage of raw material Z is expected to be at a constant rate over the period.
- Annual cost of holding one unit of raw material in stock is 11% of the material cost.
- The cost of placing an orders is ₹ 320 per order.
- The management of G Ltd. has decided that there should not be more than 40 orders in a year for the raw material Z.

Required:

(a) Prepare functional budgets for the year ended 31st March 2026 under the following headings:

(i) Production budget for Products M and N (in units).

(ii) Purchases budget for Material Z (in kgs and value).

(b) Calculate the Economic Order Quantity for Material Z (in kgs).

(c) If there is a sole supplier for the raw material Z in the market and the supplier do not sale more than 4,000 kg. of material Z at a time. Keeping the management purchase policy and production quantity mix into consideration, calculate total quantity & material Z that can be available for production.

Miscellaneous

18. (a) DISCUSS four advantages of Budgetary Control System.

(b) Infinity Manufacturing Ltd. uses an Activity-Based Costing (ABC) system in its production department. The company has identified the following activity cost pools for the year. For each activity cost pool listed below, IDENTIFY the most appropriate cost driver that should be used to allocate the overhead cost to the products.

S. No.	Activity Cost Pool
(i)	Ordering and Receiving Materials
(ii)	Setting up Machines
(iii)	Machining
(iv)	Assembling
(v)	Inspecting and Testing
(vi)	Supervising

(c) Different industries follow different methods of costing because of the differences in the nature of their work. STATE the method of costing to be followed in the given cases:

(i) cost of completing each stage of work is ascertained, like cost of making pulp and cost of making paper from pulp.

(ii) cost of each job is ascertained separately, like in the case of motor workshop.

(iii) cost of each contract is ascertained separately, like construction of bridges, roads.

(iv) a number of small orders passed through the factory in batch.

(d) STATE four financial expenses that are included in Financial Accounts only.

SUGGESTED ANSWERS/HINTS

1. (i) (B) ₹ 32,400

(ii) (C) ₹ 46,17,00,000

(iii) (B) ₹ 81,000

(iv) (C) ₹ 11,39,850

(v) (B) ₹ 5,08,99,050 & ₹ 4,64,58,225

Working notes:

Computation of revenues (at listed price), discount, cost of goods sold and customer level operating activities costs:

	Customers			
	SEM	**DHA**	**KDW**	**SRH**
Units sold: (a)	13,500	18,000	28,500	38,250
Revenues (at listed price) (₹): (b) {(a) ×₹ 19,440)}	26,24,40,000	34,99,20,000	55,40,40,000	74,35,80,000
Revenues (at actual price) (₹): (c) {(a) × Actual selling price)}	26,24,40,000 (13,500 × ₹ 19,440)	34,40,88,000 (18,000 × ₹ 19,116)	50,78,70,000 (28,500 × ₹ 17,820)	66,92,22,000 (38,250 × ₹ 17,496)
Discount (₹) (d) {(b) – (c)}	0	58,32,000	4,61,70,000	7,43,58,000
Cost of goods sold (₹) : (e) {(a) x ₹16,200}	**21,87,00,000**	**29,16,00,000**	**46,17,00,000**	**61,96,50,000**
Customer level operating activities costs				
Order taking costs (₹): (No. of purchase orders × ₹ 13,500)	2,02,500	3,37,500	4,05,000	4,05,000
Customer visits costs (₹) (No. of customer visits x ₹ 10,800)	21,600	32,400	64,800	32,400

Delivery vehicles travel costs (₹) (Kms travelled by delivery vehicles x ₹ 22.50 per km.)	4,500	4,050	6,750	13,500
Product handling costs (₹) {(a) x ₹ 67.50}	9,11,250	12,15,000	19,23,750	25,81,875
Cost of expediting deliveries (₹) {No. of expedited deliveries x ₹ 40,500}	-	-	40,500	81,000
Total cost of customer level operating activities (₹)	**11,39,850**	**15,88,950**	**24,40,800**	**31,13,775**

Computation of Customer level operating income

	Customers			
	SEM	**DHA**	**KDW**	**SRH**
	(₹)	**(₹)**	**(₹)**	**(₹)**
Revenues (At actual price) (Refer to working note above)	26,24,40,000	34,40,88,000	50,78,70,000	66,92,22,000
Less: Cost of goods sold (Refer to working note above)	(21,87,00,000)	(29,16,00,000)	(46,17,00,000)	(61,96,50,000)
Gross margin	4,37,40,000	5,24,88,000	4,61,70,000	4,95,72,000
Less: Customer level operating activities costs	(11,39,850)	(15,88,950)	(24,40,800)	(31,13,775)

(Refer to working note above)				
Customer level operating income	**4,26,00,150**	**5,08,99,050**	**4,37,29,200**	**4,64,58,225**

2. (i) (B) ₹ 15.50

(ii) (C) Abnormal gain of 100 kg

(iii) (D) ₹ 31.00

(iv) (A) 80 kg; ₹4,160

(v) (C) ₹69.33

Process- P Account

Particulars	Kg.	Amount (₹)	Particulars	Kg.	Amount (₹)
To Input	10,000	50,000	By Normal wastage (1,000 kg. × ₹ 1)	1,000	1,000
To Direct Material	---	38,000	By Process- Q (9,000 kg. × ₹ 15.50)	9,000	1,39,500
To Direct Labour	---	30,000			
To Production OH (` 90,000 × 3/12)	---	22,500			
	10,000	1,40,500		10,000	1,40,500

$$\text{Cost per unit} = \frac{₹1,40,500 - ₹1,000}{10,000\ \text{kg} - 1,000\ \text{kg}} = ₹\ 15.50$$

Process- Q Account

Particulars	Kg.	Amount (₹)	Particulars	Kg.	Amount (₹)
To Process-P A/c	9,000	1,39,500	By Normal wastage (900 kg. × ₹ 1)	900	900

To Direct Material	---	42,500	By Process- R (8,200 kg. × ₹ 31)	8,200	2,54,200
To Direct Labour	---	40,000			
To Production OH (₹ 90,000 × 4/12)	---	30,000			
To Abnormal Gain (100 kg. × ₹ 31)	100	3,100			
	9,100	2,55,100		9,100	2,55,100

$$\text{Cost per unit} = \frac{₹2,52,000 - ₹900}{9,000\ \text{kg} - 900\ \text{kg}} = ₹\ 31$$

Process- R Account

Particulars	Kg.	Amount (₹)	Particulars	Kg.	Amount (₹)
To Process-Q A/c	8,200	2,54,200	By Normal wastage (820 kg. × Re.1)	820	820
To Direct Material	---	42,880	By Abnormal loss (80 kg. × ₹ 52)	80	4,160
To Direct Labour	---	50,000	By Finished Goods (7,300 kg. × ₹52)	7,300	3,79,600
To Production OH (₹ 90,000 × 5/12)	---	37,500			
	8,200	3,84,580		8,200	3,84,580

$$\text{Cost per unit} = \frac{₹3,84,580 - ₹820}{8,200\ \text{kg} - 820\ \text{kg}} = ₹\ 52$$

Calculation of Selling price per unit of end product:

Cost per unit	₹ 52.00
Add: Profit 25% on selling price i.e. 1/3rd of cost	₹ 17.33

Selling price per unit ₹ 69.33

3. (A) ₹ 315 and ₹ 105

Total earnings (under 50% Halsey Scheme)

= Hours worked × Rate per hour + ½ × time saved × Rate per hour

= 3 hours × ₹ 90 + ½ × 1 hour × ₹90 = **₹315**

Effective hourly rate = Total earnings ÷ Hours worked

= ₹315 ÷ 3 = **₹105**

Working Note:

Let T hours be the total time worked (in hours) by the skilled worker (turner Mr. R); ₹ 90 is the rate per hour; the standard time is 4 hours per unit and the effective hourly earnings rate is ₹ 112.50, then -

Earning (under Rowan Plan) = Time taken × Rate per hr + $\frac{\text{Time saved}}{\text{Time allowed}}$ × Time taken × Rate per hr

₹ 112.5 T = T × ₹ 90 + [(4 − T) ÷ 4] × T × ₹ 90

₹ 112.5 = ₹ 90 + (4 − T) × ₹ 22.5

₹ 112.5 = ₹ 90 + ₹ 90 − 22.5 T

or, 22.5 T = ₹ 180 − ₹ 112.5

or, 22.5 T = ₹ 67.5

or, T = 3 hours.

4. (B) ₹ 19,71,100

Working Note:

Statement of Cost

(for the month of August)

	(₹)
Opening stock of raw materials	1,38,000

Add: Purchase of raw materials during the month of August	11,04,000
Less: Closing stock of raw materials	(1,15,000)
(a) Raw materials consumed	**11,27,000**
Add: Direct wages	5,52,000
(b) Prime cost	**16,79,000**
Add: Factory overheads	2,30,000
Works cost	19,09,000
Add: Opening work-in-process	27,600
Less: Closing work-in-process	(34,500)
(c) Factory cost	**19,02,100**
Add: Administration overheads	1,15,000
Cost of production	20,17,100
Add: Opening stock of finished goods	2,07,000
Less: Closing stock of finished goods	(2,53,000)
(d) Cost of goods sold	**19,71,100**

Note: Sales has been excluded as it is not required to compute the cost of goods sold.

5. (A) 8 : 5

	P (₹)	Q (₹)	Total (₹)
Sales value	32,000	20,000	52,000
Marginal cost (on sales value)	19,200	12,000	31,200
Contribution	**12,800**	**8,000**	**20,800**

Contribution ratio = 12,800 : 8,000 = 8 : 5.

Fixed cost of ₹15,600 is apportioned as ₹9,600 to P and ₹6,000 to Q.

6. (C) ₹ 1,69,231 and ₹ 38,462

Working Note:

Let **X** stand for Power House expenses and **Y** for Maintenance Department expenses. Then:

X = 1,50,000 + 0.50 Y

Y = 30,000 + 0.05 X

Substituting the value of X in the equation for Y:

Y = 30,000 + 0.05 (1,50,000 + 0.50 Y)

= 30,000 + 7,500 + 0.025 Y

= 37,500 + 0.025 Y

Y – 0.025 Y = 37,500

0.975 Y = 37,500,

therefore Y = 38,462 (approx.)

The total of expenses of the Maintenance Department is ₹ 38,462 and that of the Power House is ₹ 1,69,231 i.e., ₹ 1,50,000 + (0.5 × ₹ 38,462).

7. (A) ₹ 12,03,000; 40%; ₹ 4,01,000

Working Note:

Contribution = Sales – Variable cost

= 16,04,000 – 9,62,400

= ₹ 6,41,600

P/V ratio = Contribution / Sales × 100

= 6,41,600 / 16,04,000 × 100

= **40%**

Break-even point = Fixed cost / P/V ratio

= 4,81,200 / 40%

= **₹ 12,03,000**

Margin of safety = Actual Sales – BE point

= 16,04,000 – 12,03,000

= **₹ 4,01,000**

8. A (Number of units to be purchased annually) = 16,50,000 units

O (Ordering cost per order) = ₹ 13,200

C (Annual cost of storage per unit) = ₹ 33

Purchase price per unit inclusive of transportation cost = ₹ 165

Computations:

(i) Re-ordering level (ROL) = Maximum usage per period × Maximum lead time

= 6,600 units per day × 15 days = 99,000 units

(ii) Maximum level = ROL + ROQ – [Minimum rate of consumption × Minimum lead time] (Refer to Working Notes 1 and 2)

= 99,000 units + 36,332 units – [3,300 units per day × 5 days]

= 99,000 units + 36,332 units – 16,500 units

= **1,18,832 units**

(iii) Minimum level = ROL – [Average rate of consumption × Average re-order period]

= 99,000 units – [4,950 units per day × 10 days]

= 99,000 units – 49,500 units = **49,500 units**

(iv) Danger level = Average rate of consumption × Lead time for emergency purchases

= 4,950 units per day × 4 days

= **19,800 units**

Working Notes:

1. Minimum rate of consumption per day:

Average consumption	= ½ (Maximum consumption + Minimum consumption)
4,950	= ½ (6,600 + Minimum consumption)
Minimum rate of consumption	= (2 × 4,950) – 6,600
	= 3,300 units per day.

2. Re-order Quantity (ROQ) = Economic Order Quantity

= √[(2 × A × O) ÷ C]

= √[(2 × 16,50,000 × 13,200) ÷ 33]

= √1,32,00,00,000

= 36,331.8, i.e. **36,332 units (approx.)**

9. Working Notes:

1. Calculation of Basic Wage Rate

Effective (productive) working hours

= 35 workers × (8 − 0.5) hrs per day × 160 days

= 35 × 7.5 × 160

= 42,000 hours

Basic wages

= Total wages − Overtime premium − Shift/production allowance + DA + Bonus

= ₹ 2,52,000 − ₹ 30,000 − ₹ 12,000 + ₹ 42,000 + ₹ 21,000

= ₹ 2,73,000

Basic wage rate

= Basic wages ÷ Effective working hours

= ₹ 2,73,000 ÷ 42,000 hours**= ₹ 6.50 per hour**

Overtime rate (Sundays & holidays) = ₹ 6.50 × 200%

= **₹ 13.00 per hour**

Overtime rate (before & after normal hrs) = ₹ 6.50 × 150%

= **₹ 9.75 per hour**

2. Computation of average inflated wage rate (including overtime premium)

Particulars	**Amount (₹)**
Normal time (39,375 hrs × ₹6.50)	2,55,937.50
Overtime - Sundays & holidays (525 hrs × ₹13.00)	6,825.00
Overtime - before & after (2,100 hrs × ₹9.75)	20,475.00
Total wages for 42,000 hrs	**2,83,237.50**

Average inflated wage rate = ₹2,83,237.50 ÷ 42,000 hrs

= **₹6.74 per hour**

Labour cost chargeable to Job AK-9 (2,100 hours)

(i) Where overtime is worked regularly throughout the year as a matter of policy on account of shortage of workers:

The overtime premium is treated as a part of employee cost and job is charged at an inflated wage rate.

Employee cost chargeable to job = 2,100 hrs × ₹6.74

= ₹14,154

(ii) Where overtime is worked irregularly to cope with the general production programme / to meet the requirements of production:

Basic wage rate is charged to the job and overtime premium is charged to factory overheads as under-

Employee cost chargeable to Job = 2,100 hrs × ₹ 6.50

= ₹13,650

Factory overhead = {140 × (13.00 − 6.50)} + {280 × (9.75 − 6.50)}

= ₹910 + ₹910 = **₹1,820**

(iii) Where overtime is worked at the desire (request) of the customer to complete the job in time:

The basic wage rate is charged to the job and overtime premium also charged to the job as under-

Employee cost chargeable to Job **= 2,100 hrs × ₹6.50**

= ₹13,650

Overtime Premium = {140 × (13.00 − 6.50)} + {280 × (9.75 − 6.50)}

= ₹910 + ₹910 = **₹1,820**

Total = ₹13,650 + ₹1,820 = ₹15,470

(iv) Where overtime is worked on account of abnormal conditions such as earthquake in the area:

Basic wage rate charged to the job and overtime premium is charged to Costing Profit & Loss Account as under-

Employee cost chargeable to Job = 2,100 hrs × ₹6.50

= ₹13,650

Costing P&L A/c = {140 × (13.00 − 6.50)} + {280 × (9.75 − 6.50)}

= ₹910 + ₹910 = **₹1,820**

Total = ₹13,650 + ₹1,820 = ₹15,470

10. (a) Overhead Distribution Summary

	Basis	Total (₹)	A (₹)	B (₹)	X (₹)	Y (₹)
Direct materials	Direct	6,00,000	–	–	4,00,000	2,00,000
Direct wages	Direct	6,00,000	–	–	2,00,000	4,00,000

Factory rent (2:1:1:2)	Area	9,00,000	3,00,000	1,50,000	1,50,000	3,00,000
Power (Machine) (10:16:3:5)*	H.P. × Machine Hrs.	5,10,000	1,50,000	2,40,000	45,000	75,000
Depreciation (2:4:1:1)	Capital value	2,00,000	50,000	1,00,000	25,000	25,000
General Lighting (1:2:1:1)	Light Points	3,00,000	60,000	1,20,000	60,000	60,000
Perquisites (5:2:1:2)	Direct Wages	4,00,000	2,00,000	80,000	40,000	80,000
		35,10,000	**7,60,000**	**6,90,000**	**9,20,000**	**11,40,000**

*{(1000×50) : (2000×40) : (1000×15) : (1000×25)}

(50000 : 80000 : 15000 : 25000)

(10 : 16 : 3 : 5)

(b) (i) Redistribution of Service Department's expenses using 'Simultaneous equation method'

X = 9,20,000 + 0.05 Y

Y = 11,40,000 + 0.20 X

Substituting the value of X,

Y = 11,40,000 + 0.20 (9,20,000 + 0.05 Y)

= 13,24,000 + 0.01 Y

Y - 0.01Y = 13,24,000

$Y = \frac{13,24,000}{0.99}$

Y = ₹ 13,37,374

The total expense of **Y is ₹ 13,37,374** and that of **X is ₹ 9,86,869** *i.e.,* ₹ 9,20,000 + (0.05 × ₹ 13,37,374).

Distribution of Service departments' overheads to Production departments

	Production Departments	
	A (₹)	**B (₹)**
Overhead as per primary distribution	7,60,000	6,90,000
Dept- X (55% and 25% of ₹ 9,86,869)	5,42,778	2,46,717
Dept- Y (60% and 35% of ₹ 13,37,374)	8,02,424	4,68,081
	21,05,202	**14,04,798**

(ii) Redistribution of Service Department's expenses using 'Trial and Error Method':

	Service Departments	
	X (₹)	**Y (₹)**
Overheads as per primary distribution	9,20,000	11,40,000
(i) Apportionment of Dept-X expenses to Dept-Y (20% of ₹ 9,20,000)	---	1,84,000
	---	**13,24,000**
(ii) Apportionment of Dept-Y expenses to Dept-X(5% of ₹ 13,24,000)	66,200	---
(i) Apportionment of Dept-X expenses to Dept-Y(20% of ₹ 66,200)	---	13,240
(ii) Apportionment of Dept-Y expenses to Dept-X(5% of ₹ 13,240)	662	---
(i) Apportionment of Dept-X expenses to Dept-Y(20% of ₹ 662)		132
(ii) Apportionment of Dept-Y expenses to Dept-X(5% of ₹ 132)	7	
Total	**9,86,869**	**13,37,372**

Distribution of Service departments' overheads to Production departments

	Production Departments	
	A (₹)	**B (₹)**
Overhead as per primary distribution	7,60,000	6,90,000
Dept- X (55% and 25% of ₹ 9,86,869)	5,42,778	2,46,717
Dept- Y (60% and 35% of ₹ 13,37,372)	8,02,423	4,68,080
	21,05,201	**14,04,797**

(iii) Redistribution of Service Department's expenses using 'repeated distribution method':

	A (₹)	**B (₹)**	**X (₹)**	**Y (₹)**
Overhead as per primary distribution	7,60,000	6,90,000	9,20,000	11,40,000
Dept. X overhead apportioned in the ratio (55:25:—:20)	5,06,000	2,30,000	(9,20,000)	1,84,000
Dept. Y overhead apportioned in the ratio (60:35:5: —)	7,94,400	4,63,400	66,200	(13,24,000)
Dept. X overhead apportioned in the ratio (55:25:—:20)	36,410	16,550	(66,200)	13,240
Dept. Y overhead apportioned in the ratio (60:35:5: —)	7,944	4,634	662	(13,240)
Dept. X overhead apportioned in the ratio (55:25:—:20)	364	166	(662)	132

Dept. Y overhead apportioned in the ratio (60:35:5: —)	79	46	7	(132)
Dept. X overhead apportioned in the ratio (55:25:—:20)	4	3	(7)	-
	21,05,201	**14,04,799**	–	–

11. Cost Sheet of Prateek LED Industries Ltd. for the year ended 31st March, 2026

Particulars	**₹**	**₹**
Material Consumed:		
Raw materials purchased	36,00,000	
Add: Freight inwards (2% of raw materials purchased)	72,000	
Add: Opening stock of raw materials	15,30,000	
Less: Closing stock of raw materials	(8,10,000)	43,92,000
Direct employee (labour) cost:		
Wages paid to factory workers	28,35,000	
Add: Production bonus paid to factory workers (10% of wages)	2,83,500	31,18,500
Direct expenses:		
Job charges paid to job workers	1,84,500	1,84,500
Prime Cost		**76,95,000**
Works / Factory overheads:		
Depreciation on factory building (₹ 98,41,500 x 10%)	9,84,150	
Depreciation on plant & machinery (₹ 52,02,000 x 15%)	7,80,300	

Insurance premium for plant & machinery (₹ 67,50,000 x 2%)	1,35,000	
Insurance premium for factory building (₹ 1,12,50,000 x 2%)	2,25,000	
Salary paid to supervisors	27,80,550	49,05,000
Gross factory cost		**1,26,00,000**
Add: Opening value of W-I-P	24,75,000	
Less: Closing value of W-I-P	(15,75,000)	
Factory Cost		**1,35,00,000**
Quality control cost:		
Expenses paid for quality control check activities	19,35,000	19,35,000
Administration cost related with production:		
Salary paid to Production Control Manager	32,40,000	32,40,000
Less: Realisable value on sale of scrap		(2,25,000)
Add: Primary packing cost		13,50,000
Cost of Production		**1,98,00,000**
Add: Opening stock of finished goods (80,000 units)	36,00,000	
Less: Closing stock of finished goods (70,000 units)	(31,50,000)	
Cost of Goods Sold		**2,02,50,000**

Administrative overheads:		
Depreciation on office building (₹ 1,62,00,000 x 10%)	16,20,000	
Salary paid to General Manager	55,80,000	
Fee paid to independent directors	22,50,000	94,50,000
Selling overheads (4,50,000 units x ₹ 9)		40,50,000
Cost of Sales		**3,37,50,000**
Add: Profit (25% on cost of sales)		84,37,500
Sales		**4,21,87,500**

Working Note:

Calculation of value of closing finished goods

Number of units produced = Units sold + Closing stock - Opening stock

= 4,50,000 + 70,000 - 80,000

= 4,40,000 units

Per unit cost = Cost of Production / Number of units produced

= ₹ 1,98,00,000 / 4,40,000 units

= ₹ 45 per unit

Value of Closing stock = ₹ 45 x 70,000 units

= ₹ 31,50,000

12. Profit & Loss Account of Sahyadri Precision Components Limited (for the year ended 31st March, 2026)

		(₹)			(₹)
To	Opening Stock	-	By	Sales (66,000 units)	82,50,000
"	Materials	33,00,000	"	Closing Stock:	

"	Wages (50% of materials)	16,50,000		Finished goods (4,059 units)	4,95,000
"	Factory Overheads	14,85,000		Work-in-Process	2,31,000
"	Admn. Overheads	8,58,000			
"	S&D Overheads	5,94,000			
"	Loss on the sale of Fixed Assets	6,60,000			
"	Expenses relating to issue of shares	66,000			
"	**Net Profit**	**3,63,000**			
		89,76,000			**89,76,000**

Cost Sheet

	(₹)
Materials	33,00,000
Wages (50% of materials)	16,50,000
Direct Expenses	-
Prime Cost	**49,50,000**
Add: Factory Overhead @ 100% of wages	16,50,000
Gross Factory Cost	66,00,000
Less: Closing WIP	(2,31,000)
Factory Cost of (66,000 + 4,059) units	**63,69,000**
Add: Admn. Overhead @ 10% of Factory cost	6,36,900
	70,05,900
Less: Closing Stock of finished goods (4,059 units)	(4,05,900)*
Cost of Goods sold (66,000 units)	**66,00,000**
Add: Selling & Dist. Overhead @ ₹ 10 per unit	6,60,000
Cost of sales (66,000 units)	**72,60,000**

Sales of 66,000 units	82,50,000
Profit	**9,90,000**

* [₹ 70,05,900 × (4,059 units/ 70,059 units)]

Reconciliation Statement

	(₹)	(₹)
Profit as per Cost Accounts		9,90,000
Add: Factory overheads over-absorbed (₹ 16,50,000 – ₹ 14,85,000)	1,65,000	
Selling & Dist. Overhead over-absorbed (₹ 6,60,000 – ₹ 5,94,000)	66,000	
Difference in the valuation of closing stock of finished goods (₹ 4,95,000 – ₹ 4,05,900)	89,100	3,20,100
		13,10,100
Less: Admn. overhead under-absorbed (₹ 8,58,000 – ₹ 6,36,900)	2,21,100	
Loss on the sale of Fixed Assets	6,60,000	
Expenses relating to issue of shares	66,000	9,47,100
Profit as per financial accounts		3,63,000

13. Working Note:

Apportionment of pre-separation (joint) cost on the basis of weight of output

Particulars	Oleic Acid	Stearic Acid	Glycerine	Total
Output (in litre)	100	70	80	250
Weight (ratio of output)	0.40	0.28	0.32	1.00
Joint cost apportioned (₹)	**17,600**	**12,320**	**14,080**	**44,000**

(i) Statement showing Profit / (Loss) by each product after further processing

Particulars	Oleic Acid (₹)	Stearic Acid (₹)	Glycerine (₹)
Sales value after further processing	22,000 (₹ 220 × 100)	24,640 (₹ 352 × 70)	21,120 (₹ 264 × 80)
Less: Further processing cost	8,800	5,280	3,520
Less: Pre-separation cost apportioned	17,600	12,320	14,080
Profit / (Loss)	**(4,400)**	**7,040**	**3,520**

(ii) Decision: whether to process further or to sell at the separation point

Particulars	Oleic Acid (₹)	Stearic Acid (₹)	Glycerine (₹)
Incremental revenue	11,000 [(220-110) × 100]	1,540 [(352-330[1]) × 70]	5,280 [(264-198) × 80]
Less: Further processing cost	8,800	5,280	3,520
Incremental profit / (Loss)	**2,200**	**(3,740)**	**1,760**

Particulars	Oleic Acid (₹)	Stearic Acid (₹)	Glycerine (₹)
Sales	11,000 (₹ 110 × 100)	23,100 (330[1] × 70)	15,840 (₹ 198 × 80]
Pre separation costs	17,600	12,320	14,080
Profit/(Loss)	(6,600)	10,780	1,760

[1] As the question specifically requires to advise on the proposal to sell the entire monthly output of Stearic Acid at ₹ 330 per litre at the separation point, hence, comparison has been done considering this price only instead of ₹ 308 per litre.

On purely financial considerations, it is advisable to **process Oleic Acid and Glycerine further.**

Furthermore, with respect to proposal of Zenith Nutra LLP, Satguru Oleochemicals Limited is advised to accept the proposal and sell the entire output of Stearic Acid at the separation point.

14. Working Notes:

1. Total Distance (in km.) covered per month

Bus route	Km. per trip	Trips per day	Days per month	Km. per month
Delhi to Hisar	160	2	9	2,880
Delhi to Aligarh	160	2	12	3,840
Delhi to Alwar	170	2	6	2,040
Total				8,760

2. Passenger- km. per month

	Total seats available per month (at 100% capacity)	Capacity utilised		Km. per trip	Passenger-Km. per month
		(%)	Seats		
Delhi to Hisar & Back	900 (50 seats × 2 trips × 9 days)	90	810	160	1,29,600 (810 seats × 160 km.)

Delhi to Aligarh & Back	1,200 (50 seats × 2 trips × 12 days)	95	1,140	160	1,82,400 (1,140 seats × 160 km.)
Delhi to Alwar & Back	600 (50 seats × 2 trips × 6 days)	100	600	170	1,02,000 (600 seats × 170 km.)
Total					4,14,000

Monthly Operating Cost Statement

Particulars	**(₹)**	**(₹)**
(i) Running Costs		
Diesel {(8,760 km ÷ 5 km) × ₹ 90}	1,57,680.00	
Lubricant oil {(8,760 km ÷ 100) × ₹ 30}	2,628.00	1,60,308.00
(ii) Maintenance Costs		
Repairs & Maintenance		5,000.00
(iii) Standing charges		
Salary to driver	30,000.00	
Salary to conductor	26,000.00	
Salary of part-time accountant	7,000.00	
Insurance (₹ 6,000 ÷12)	500.00	
Road tax (₹ 21,912 ÷12)	1,826.00	
Permit fee	500.00	
Depreciation {(₹ 15,00,000 × 30%) ÷ 12}	37,500.00	1,03,326.00
Total costs per month before Passenger Tax (i)+(ii)+(iii)		2,68,634.00
Passenger Tax*		1,07,453.60
Total Cost		3,76,087.60

Add: Profit*		1,61,180.40
Total takings per month		5,37,268.00

*Let total takings be X then,

X = Total costs per month before passenger tax + 0.2 X (passenger tax) + 0.3 X (profit)

X = ₹ 2,68,634 + 0.2 X + 0.3 X

0.5 X = ₹ 2,68,634 or, X = ₹ 5,37,268

Passenger Tax = 20% of ` 5,37,268 = ₹ 1,07,453.60

Profit = 30% of ₹ 5,37,268 = ₹ 1,61,180.40

Calculation of Rate per passenger km. and fares to be charged for different routes

Rate per Passenger-Km. $= \frac{\text{Total takings per month}}{\text{Total Passenger - Km. per month}}$

$= \frac{₹\,5,37,268}{4,14,000 \text{ Passenger -Km.}} = ₹\ 1.30 \text{ (approx.)}$

Bus fare to be charged per passenger:

Delhi to Hisar	=	₹ 1.30 × 160 km	=	₹ 208.00
Delhi to Aligarh	=	₹ 1.30 × 160 km	=	₹ 208.00
Delhi to Alwar	=	₹ 1.30 × 170 km	=	₹ 221.00

15. (i) Material Variances

Budget			Std. for actual			Actual		
Quantity (Meter)	**Price (₹)**	**Amount (₹)**	**Quantity (Meter)**	**Price (₹)**	**Amount (₹)**	**Quantity (Meter)**	**Price (₹)**	**Amount (₹)**
1	60	60	10,000	60	6,00,000	11,400	58	6,61,200

Material Cost Variance = (SQ × SP – AQ × AP)

= 6,00,000 – 6,61,200 = ₹ 61,200 (A)

Material Price Variance = (SP – AP) AQ

= (60 - 58) 11,400 = ₹ 22,800 (F)

Material Usage Variance = (SQ – AQ) SP

= (10,000 – 11,400) 60 = ₹ 84,000 (A)

(ii) Variable Overheads variances

Variable overhead cost Variance

= Standard variable overhead – Actual Variable Overhead

= (10,000 units × 2 hours × ₹ 10) – 2,24,400 = ₹ 24,400 (A)

Variable overhead Efficiency Variance

= (Standard Hours – Actual Hours) × Standard Rate per Hour

Let Actual Hours be 'X', then:

(20,000 – X) × 10 = 4,000 (A)

2,00,000 – 10X = - 4,000

X = 2,04,000 ÷ 10

Therefore, Actual Hours (X) = 20,400

Variable overhead Expenditure Variance

= Variable Overhead at Actual Hours - Actual Variable Overheads

= 20,400 × ₹ 10 – 2,24,400 = ₹ 20,400 (A)

(iii) Labour variances

Budget			Std. for actual			Actual		
Hours	**Rate (₹)**	**Amount (₹)**	**Hours**	**Rate (₹)**	**Amount (₹)**	**Hours**	**Rate (₹)**	**Amount (₹)**
2	20	40	20,000	20	4,00,000	20,400	22*	4,48,800

*Actual Rate = ₹ 4,48,800 ÷ 20,400 hours = ₹ 22

Labour Cost Variance **= (SH × SR) – (AH × AR)**

= 4,00,000 – 4,48,800 = ₹ 48,800 (A)

Labour Rate Variance **= (SR – AR) × AH**

= (20 – 22) × 20,400 = ₹ 40,800 (A)

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

= (20,000 – 20,400) × 20 = ₹ 8,000 (A)

16. (i)

	Machine A			Machine B		
	Quantity	**Price**	**Amount (₹)**	**Quantity**	**Price**	**Amount (₹)**
Sales	50,000	1,440	7,20,00,000	50,000	1,440	7,20,00,000
Variable cost	50,000	1,332	6,66,00,000	50,000	1,368	6,84,00,000
Contribution		**108**	**54,00,000**		**72**	**36,00,000**
Fixed Cost			21,60,000			12,96,000
Profit			**32,40,000**			**23,04,000**
P/V Ratio			7.5%			5%
Break even Sales			**2,88,00,000**			**2,59,20,000**

Note:

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

Break even Sales = Fixed Cost ÷ P/V Ratio.

(ii) Let the units be x

108x – 21,60,000 = 72x – 12,96,000

36x = 8,64,000

x = 24,000 Units

17. (a) (i) Production Budget (in units) for the year ended 31st March 2026

	Product M	Product N
Budgeted sales (units)	28,000	13,000
Add: Increase in closing stock	320	160
No. good units to be produced	28,320	13,160
Post production rejection rate	4%	6%
No. of units to be produced	29,500 $\left(\frac{28,320}{0.96}\right)$	14,000 $\left(\frac{13,160}{0.94}\right)$

(ii) Purchase budget (in kgs and value) for Material Z

	Product M	Product N
No. of units to be produced	29,500	14,000
Usage of Material Z per unit of production	5 kg.	6 kg.
Material needed for production	1,47,500 kg.	84,000 kg.
Materials to be purchased	1,63,889 kg. $\left(\frac{1,47,500}{0.90}\right)$	88,421 kg. $\left(\frac{84,000}{0.95}\right)$
Total quantity to be purchased		2,52,310 kg.
Rate per kg. of Material Z		₹36
Total purchase price		₹90,83,160

(b) Calculation of Economic Order Quantity for Material Z

$$EOQ = \sqrt{\frac{2 \times 2,52,310 kg. \times ₹\ 320}{₹36 \times 11\%}} = \sqrt{\frac{16,14,78,400}{₹\ 3.96}} = 6,385.72 \text{ kg.}$$

(c) Since, the maximum number of order per year can not be more than 40 orders and the maximum quantity per order that can be purchased is 4,000 kg. Hence, the total quantity of Material Z that can be available for production:

= 4,000 kg. × 40 orders = 1,60,000 kg.

18. (a) Advantages of Budgetary Control System:

Points	Description
1. Efficiency	The use of budgetary control system enables the management of a business entity to conduct its business activities in an efficient manner.
2. Control on expenditure	It is a powerful instrument used by business entity for the control of their expenditure. It provides a yardstick for measuring and evaluating the performance of individuals and their departments.
3. Finding deviations	Budget reveals the deviations of the actual from the budgeted figures after making a comparison and communicating the deviation to management.
4. Effective utilisation of resources	Effective utilisation of various resources like—men, material, machinery and money—is made possible, as the production is planned after taking these into account.

5. Revision of plans	Budget helps in the review of current trends and framing of future policies.
6. Implementation of Standard Costing system	Budget creates suitable conditions for the implementation of standard costing system in a business organisation.
7. Cost Consciousness	Budgetary control system encourages cost consciousness and maximum utilisation of available resources.
8. Credit Rating	Management which has developed a well-ordered budget plans and which operate accordingly, receive greater favour from credit agencies.

(b)

S. No.	Activity Cost Pool	Cost Driver
(i)	Ordering and Receiving Materials	Number of purchase orders
(ii)	Setting up Machines	Number of set-ups
(iii)	Machining	Machine hours
(iv)	Assembling	Number of parts
(v)	Inspecting and Testing	Number of tests
(vi)	Supervising	Direct labour hours

(c)

S. No.	Particulars	Method of costing
(i)	Cost of completing each stage of work is ascertained, like cost of making pulp and cost of making paper from pulp.	Process costing
(ii)	Cost of each job is ascertained separately, like in the case of motor workshop.	Job costing
(iii)	Cost of each contract is ascertained separately, like construction of bridges, roads.	Contract costing
(iv)	A number of small orders passed through the factory in batch.	Batch costing

(d) Financial Expenses included in Financial Accounts only-

(i) Interest on loans or bank mortgages.

(ii) Expenses and discounts on issue of shares, debentures etc.

(iii) Other capital losses i.e., loss by fire not covered by insurance etc.

(iv) Losses on the sales of fixed assets and investments.

(v) Income tax, donations, subscriptions.

(vi) Expenses of the company's share transfer office, if any.

PAPER – 5:

AUDITING AND ETHICS

QUESTIONS

PART – I: Multiple Choice Questions based on Case Scenarios

Case Scenario

Arnav Engineering Limited is a listed company engaged in the manufacture of industrial equipments. The company has substantial inventories and trade receivables and operates through different business segments.

MNP & Associates have been appointed as its statutory auditors for the year ended 31st March, 2026. During the audit, the engagement team identified certain matters that required evaluation in determining the appropriate audit procedures and assessing their implications for the financial statements and auditor's independence.

The company processes a large number of sales transactions through its ERP system. The audit team has access to reliable monthly information, which can be analysed by product and geographical region. Trade receivables arising from these sales are also collected in a relatively consistent pattern, and reliable information on sales and subsequent collections is available for analysis by product and geographical region. Historical relationships between certain items have remained reasonably stable. However, some year-end balances arise from unusual transactions and involve significant management estimates. The engagement partner is considering the extent to which the available information can be used in performing substantive audit procedures.

Arnav Engineering Limited maintains inventory at its own premises as well as at warehouses operated by third parties. During the year, the company has also been involved in several legal proceedings with customers and suppliers

and reports financial information for different business segments. The engagement partner has instructed the audit team to consider the specific requirements applicable to these matters while obtaining sufficient appropriate audit evidence.

During the inventory count, differences were noted between physical quantities and the perpetual inventory records. Some goods belonging to the company were lying with third parties, while goods received on consignment were stored together with the company's own goods. Certain receiving reports and dispatch documents relating to the period around year-end had also not been reconciled with the accounting records. The engagement partner asked the audit team to perform further audit procedures before concluding on the inventory balance.

The company has incurred substantial operating losses and negative operating cash flows, and its current liabilities have exceeded its current assets during the year. Certain key financial ratios have also deteriorated significantly. Several fixed-term borrowings used to finance long-term assets are approaching maturity, with no firm arrangements yet in place for their renewal or repayment. A few lenders have indicated that continued financial support will depend upon specified financial targets, while the company has experienced delays in paying some creditors. During the year, the company also lost a major customer, while one of its principal suppliers changed its terms from credit to cash-on-delivery. The company has faced shortages of certain important supplies, and a major competitor has recently entered its principal market with aggressive pricing. Management expects to obtain additional finance, improve its market position and continue operations.

During the audit, the engagement partner noted certain instances involving members of the audit engagement team, namely Mr. S, Mr. R, Mr. A and Mr. M, which required evaluation in the context of the fundamental principles of professional ethics:

(i) Mr. S became aware that certain information proposed to be included in the audit documentation was materially misleading but failed to raise the matter.

(ii) Mr. R was influenced by pressure from senior management while exercising his professional judgement in evaluating a significant accounting treatment.

(iii) Mr. A, who lacked the requisite knowledge and skill, was assigned an important audit procedure and failed to perform it with the necessary care and diligence.

(iv) Mr. M proposed to disclose confidential information obtained during the audit to a third party, without any legal or professional requirement or authorisation from the client.

Based on above, answer the following questions (MCQs 1-5)

1. Which of the following would be most appropriate for determining the appropriate audit approach for revenue and receivable balances?

   (A) Analytical procedures would be inappropriate for balance sheet accounts because such balances are inherently less predictable.

   (B) Analytical procedures may be appropriate where data and relationships are reliable and predictable, subject to the assessed risks.

   (C) Analytical procedures would be sufficient whenever reliable information exists, irrespective of estimates and unusual transactions.

   (D) Analytical procedures would be sufficient where historical relationships remain stable, without requiring further detailed testing.

2. The engagement partner specifically asks the audit team to consider the requirements relating to inventory held at third-party locations, the company's legal proceedings, and its reporting of different business segments. Identify the objectives of the auditor, as specified in SA 501, in respect of these items?

   (A) Valuation and completeness of inventory; presentation of litigation; recognition and measurement of segment information.

   (B) Completeness and valuation of inventory; existence of litigation; classification and recognition of segment information.

   (C) Rights and obligations over inventory; valuation of litigation; completeness and measurement of segment information.

   (D) Existence and condition of inventory; completeness of litigation and claims; presentation and disclosure of segment information.

3. Which of the following would be most appropriate to address the relevant audit concern before concluding on the inventory balance?

   (A) Perform cut-off testing, reconcile inventory records, verify ownership of consignment goods, and verify inventory held by third parties.

   (B) Inspect inventory condition, review valuation assumptions, calculate turnover, and compare margins with prior periods.

   (C) Inspect damaged inventory, confirm external balances, review obsolescence, and examine subsequent inventory sales.

   (D) Reperform valuation calculations, inspect physical condition, analyse ratios, and review provisioning methodology.

4. Considering the various circumstances affecting the company's future operations, which of the following would be the most appropriate assessment?

   (A) Negative cash flows establish the uncertainty, while management's proposed financing plans need not be considered further.

   (B) Approaching loan maturities represent the principal concern, while operating developments have comparatively little relevance.

   (C) The combination of financial and operating conditions may, individually or collectively, cast significant doubt on going concern.

   (D) Management's expectation of obtaining finance eliminates the uncertainty unless an actual borrowing default has occurred.

5. Identify the fundamental principles of professional ethics that have been compromised by Mr. S, Mr. R, Mr. A and Mr. M respectively.

   (A) Integrity, Objectivity, Professional Competence and Due Care, Confidentiality

   (B) Objectivity, Integrity, Professional Competence and Due Care, Professional Behaviour

   (C) Integrity, Professional Behaviour, Objectivity, Confidentiality

   (D) Professional Behaviour, Objectivity, Integrity, Professional Competence and Due Care

General MCQs

6. The trade receivables of ABC Ltd. range from ₹ 500 to ₹ 25 lakh. The auditor observes considerable variability in the monetary size of individual balances. Instead of selecting one sample from the entire population, the auditor divides the balances into separate groups based on their monetary size and selects samples from each group.

   Which of the following sampling method best describes the auditor's approach?

   (A) Haphazard sampling

   (B) Systematic sampling

   (C) Stratified sampling

   (D) Block sampling

7. During the audit of Bell Ltd., the auditor notices that several trade receivable balances have remained outstanding for a considerable period. Some customers have disputed the amounts payable, while the management continues to show the balances at their original amounts.

   The auditor decides to examine whether the amounts represented by trade receivables are recoverable and whether appropriate adjustments have been made.

   Which assertion is the auditor primarily seeking to verify?

   (A) Completeness

   (B) Occurrence

   (C) Cut-off

   (D) Valuation

8. CA T is conducting the audit of PQR Ltd., a manufacturer of specialised electronic components. During the audit, he identifies the following situations:

(i) The company's inventory valuation involves significant judgement due to rapid technological obsolescence, making the inventory balance susceptible to material misstatement.

(ii) The company's internal controls are inadequately designed to prevent or detect and correct material misstatements on a timely basis.

(iii) Despite designing and performing appropriate audit procedures, CA T considers the possibility that certain material misstatements may remain undetected.

(iv) CA T evaluates the possibility of expressing an inappropriate audit opinion on financial statements that are materially misstated.

Based on the above situations, identify the risks involved and their respective associations with the entity or the auditor.

(A) (i) Inherent risk – Entity; (ii) Control risk – Entity; (iii) Detection risk – Auditor; (iv) Audit risk – Auditor.

(B) (i) Inherent risk – Auditor; (ii) Control risk – Entity; (iii) Detection risk – Entity; (iv) Audit risk – Auditor.

(C) (i) Control risk – Entity; (ii) Inherent risk – Entity; (iii) Detection risk – Auditor; (iv) Audit risk – Auditor.

(D) (i) Inherent risk – Entity; (ii) Control risk – Auditor; (iii) Detection risk – Auditor; (iv) Audit risk – Entity.

PART II – Descriptive Questions

Chapter 1 - Nature, Objective and Scope of Audit

9. ABC Ltd. is being audited for the year ended 31st March, 2026. During course of the audit, the auditor comes across several situations. The financial statements include certain balances and estimates based on judgements made by management. The auditor also relies on sampling instead of examining every transaction and balance.

Further, the auditor notices that certain purchase invoices have been supported by authorisations from the Goods Receiving Section. However, the audit team becomes aware that the accountant and an authorised employee may have colluded in approving certain fictitious

purchase invoices. In addition, management provides supporting documents for certain transactions which appear genuine, but their authenticity cannot be independently established in every case.

During the audit, the auditor also identifies certain transactions with parties whose relationship with the company was not initially disclosed to the audit team.

The Audit Assistant, after considering the above circumstances, states:

"If the auditor performs the required audit procedures and examines the documents and internal controls maintained by ABC Ltd., the auditor should be able to obtain absolute assurance that the financial statements are free from material misstatement due to fraud or error."

With reference to above circumstances, explain the inherent limitations of an audit arising from (i) the nature of financial reporting and (ii) the nature of audit procedures and examine whether the statement made by the Audit Assistant is correct.

Chapter 2 - Audit Strategy, Audit Planning and Audit Programme

10. XYZ Ltd. is being audited for the year ended 31st March, 2026. During the initial planning of the engagement, the Engagement Partner determines the overall scope, timing and direction of the audit and considers the allocation of audit resources. Based on the matters identified at this stage, the Audit Manager develops a detailed audit plan specifying the nature, timing and extent of audit procedures to be performed by members of the engagement team.

As the audit progresses, certain risks initially assessed as significant are found to be lower than expected, while an unexpected issue relating to revenue recognition comes to the auditor's attention. The Audit Manager proposes changes to the audit procedures in response to these developments. A team member, however, believes that once the overall audit strategy has been established, it should remain unchanged and that the audit plan is merely a separate document prepared after completion of the strategy.

Explain the relationship between the overall audit strategy and the audit plan. With reference to above facts, discuss whether the overall audit

strategy and the audit plan are necessarily separate and sequential processes.

Chapter 3 - Risk Assessment and Internal Control

11. During the course of audit of PQR Ltd. for the year ended 31st March, 2026, the auditor identifies the following matters:

- The company has entered into a number of complex transactions involving multiple contractual arrangements and unusual financing terms.
- The auditor identifies circumstances indicating a possibility of management manipulation of revenue to achieve performance targets.
- The auditor becomes aware of a significant transaction with an entity controlled by a close relative of one of the directors.
- During the audit, a recent change in the regulatory environment comes to the auditor's attention, which has a significant impact on the company's accounting and reporting.
- The valuation of certain financial instruments involves significant management judgement and a wide range of measurement uncertainty.
- The auditor identifies a large transaction that is outside the normal course of the company's business.

With reference to above, explain the factors that the auditor is required to consider in determining whether an identified risk is a significant risk.

Chapter 4 - Audit Evidence

12. MNO Ltd. is engaged in the manufacture and sale of consumer products. During the audit for the year ended 31st March, 2026, the auditor considers the controls surrounding sales. Under the company's system, sales invoices can be generated only after approval by the sales manager, and dispatch documentation can be generated only against an approved sales order. The auditor selects a sample of transactions to

determine whether these prescribed controls operated consistently throughout the year.

While auditing trade receivables, the auditor notices that the balance has increased significantly compared with the previous year. Selected customer balances are verified with supporting documents, and the auditor also compares the current year's receivables ageing pattern with that of the previous year to identify and investigate significant or unusual movements.

Explain the components of further audit procedures and, in the above circumstances, analyse the audit procedures performed by the auditor and identify whether each procedure represents a test of controls, test of details or substantive analytical procedure.

13. Excel Industries Ltd. conducts its physical inventory count on 18th March 2026, whereas its financial statements are prepared as at 31st March 2026. During the audit, CA Nandini observes significant differences between the quantities recorded during the physical count and the perpetual inventory records as on 31st March 2026. The auditor also needs to assess whether movements in inventory between 18th March and 31st March 2026 have been properly recorded.

    While auditing trade receivables, CA Nandini decides to obtain external confirmations from selected customers. However, the management refuses to allow her to send confirmation requests to certain customers. What additional audit procedures are to be undertaken by the statutory auditor for inventory verification? Also, what should the auditor do if she concludes that management's refusal to allow the auditor to send the confirmation request is unreasonable?

Chapter 5 - Audit of Items of Financial Statements

14. While auditing the financial statements of Timnic Engineering Ltd. for the year ended 31st March, 2026, CA Nisha is verifying the depreciation and amortisation expenses. She notices certain changes in accounting policies, incorrect consideration of residual values, differences in useful lives of significant components, and possible errors in the calculation and period of recognition of depreciation.

Explain the key attributes that CA Nisha should consider while verifying depreciation and amortisation expenses.

Chapter 6 - Audit Documentation

15. The auditor of VWX Ltd. signed the auditor's report on 30th June, 2026. During July and August 2026, the engagement team undertakes the process of assembling the final audit file. During this process, superseded working papers are removed, documents are sorted and cross-referenced, and completion checklists are signed.

The engagement partner also asks a team member to place in the audit file certain audit evidence that had been obtained, discussed and agreed with the relevant members of the engagement team before 30th June, 2026, but had not been included in the file at that time.

On 25th August, 2026, after completion of the final audit file, the team discovers that one of the working papers contains an error in the auditor's earlier assessment. The team proposes to delete the original working paper and replace it with a revised working paper reflecting a new conclusion.

The firm's policy provides for retention of audit documentation for seven years from the date of the auditor's report.

Analyse the actions proposed and undertaken by the audit team after the date of the auditor's report and explain the requirements relating to completion and retention of the final audit file.

Chapter 7 - Completion and Review

16. During the audit of TUV Ltd. for the year ended 31st March, 2026, the auditor evaluates the company's internal control system and identifies certain deficiencies in the control environment, risk assessment process, response to identified risks, and controls over financial reporting. Some of these deficiencies relate to the manner in which significant transactions involving management are scrutinised, the prevention and detection of fraud, the identification and response to risks of material misstatement, and the implementation of remedial measures for deficiencies communicated earlier. The auditor also considers the effect of deficiencies that may result in misstatements and the circumstances

in which significant deficiencies may exist even though no misstatement has been identified during the audit.

The management of TUV Ltd. believes that a deficiency in internal control can be regarded as significant only when the auditor has identified an actual material misstatement in the financial statements.

With reference to SA 265, explain the meaning of significant deficiency in internal control, the basis for determining its significance, and the examples of indicators of significant deficiencies in internal control. Apply the relevant principles to the circumstances of TUV Ltd.

Chapter 8 - Audit Report

17. Explain the circumstances in which an Emphasis of Matter paragraph is included in the auditor's report as per SA 706 (Revised), including the conditions to be satisfied. Where the auditor includes an Emphasis of Matter paragraph in the auditor's report, explain:

    (a) the manner in which the paragraph is presented in the auditor's report and the heading used;

    (b) the reference to the matter being emphasized and the relevant disclosures in the financial statements; and

    (c) the indication given by the auditor regarding the auditor's opinion in respect of the matter emphasized.

Chapter 9 - Special Features of Audit of Different Type of Entities

18. Vidya Vikas Society is registered under the applicable State Societies Law and is engaged in educational and charitable activities. During the audit of its financial statements for the year ended 31st March, 2026, the auditor notes that the Society receives donations and grants from various sources, including contributions received from outside India. Certain grants are subject to specific conditions regarding their utilisation, while some expenditure incurred by the Society is reimbursed by donors.

    The auditor also notices that the Society has recently amended some of its activities and therefore needs to consider whether they continue to fall within the objects stated in its memorandum and bye-laws. The Society has claimed exemption under the Income-tax Act. During the

year, an inquiry was also conducted by the Registrar into certain aspects of the Society's working and financial affairs.

While reviewing the expenditure records, the auditor comes across certain payments which appear irregular and certain amounts due to the Society that have not been recovered. There are also indications that some expenditure may have resulted from improper use of the Society's funds by members of its governing body.

In the light of the above circumstances, explain the important considerations that should be kept in view by the auditor while conducting the audit of a society.

Chapter 10 - Audit of Banks

19. During the audit of Suryodaya Bank Ltd. for the year ended 31st March, 2026, the auditor examines the following advances and their outstanding balances as at that date.

Advance A: ₹ 80 lakh, against which the borrower has provided eligible security valued at ₹ 50 lakh. The advance has remained non-performing for 9 months.

Advance B: ₹ 1.20 crore, against which the eligible security is valued at ₹ 80 lakh. The advance has remained in the doubtful category for 20 months.

Advance C: ₹ 2 crore, against which the eligible security is valued at ₹ 1.20 crore. The advance has remained in the doubtful category for 3 Years 8 months.

Advance D: ₹ 60 lakh is an advance in respect of which loss has been identified by the RBI during its inspection. The bank has not yet written off the amount.

The management has made a total provision of ₹ 1.40 crore against the above four advances.

With reference to above facts, determine the classification of each advance and calculate the total provision required. Also comment on whether the provision made by the management is adequate.

Chapter 11 - Ethics and Terms of Audit Engagements

20. M/s. VPN & Co. is the statutory auditor of PLB Ltd. During the audit for the financial year 2025–26, the following situations arose:

(i) CA Sumit, a partner of VPN & Co., holds a significant financial interest in PLB Ltd.

(ii) The Managing Director of PLB Ltd., Mr. Sanjeev, threatens to replace VPN & Co. if the auditors do not agree with its proposed accounting treatment.

(iii) The audit team is required to verify certain financial information that was prepared by VPN & Co. while providing an earlier non-audit service to PLB Ltd.

(iv) The spouse of a member of the audit team holds a senior management position in PLB Ltd.

(v) VPN & Co. is representing PLB Ltd. in a legal dispute against a third party.

Identify and explain the type of threat to independence arising in each of the above situations.

SUGGESTED ANSWERS

PART – I: Answers to Multiple Choice Questions

MCQ No.	Answer
1.	(B)
2.	(D)
3.	(A)
4.	(C)
5.	(A)
6.	(C)
7.	(D)
8.	(A)

PART – II: Answers to Descriptive Questions

9. The process of audit suffers from certain inbuilt limitations due to which an auditor cannot obtain absolute assurance that financial statements are free from misstatement due to fraud or error. These fundamental limitations may arise due to various factors, including the nature of financial reporting and the nature of audit procedures.

(1) **Nature of financial reporting:** Preparation of financial statements involves making many judgments by management. These judgments may involve subjective decisions or a degree of uncertainty. Therefore, auditor may not be able to obtain absolute assurance that financial statements are free from material misstatements due to frauds or errors.

One of the premises for conducting an audit is that management acknowledges its responsibility of preparation of financial statements in accordance with applicable financial reporting framework and for devising suitable internal controls. However, such controls may not have operated to produce reliable financial information due to their own limitations.

Consider, for example, that management of a company has devised a control that all purchase bills should reflect stamp and signatures of an authorised person in "Goods Receiving Section" of the company stating the date and time of receiving goods in premises. It is an example of internal control devised by the company to ensure that only those purchase bills are produced for payment for which goods have been actually received. Now, what happens if concerned accountant and authorised person in "Goods Receiving Section" collude. It is a case of overriding of internal controls devised by the company due to collusion between two persons. Such a probable collusion is one of limitations of internal controls itself.

(2) **Nature of Audit procedures**: The auditor carries out his work by obtaining audit evidence through performance of audit procedures. However, there are practical and legal limitations on ability of auditor to obtain audit evidence. For example, an auditor does not test all transactions and balances. He forms his opinion

only by testing samples. It is an example of practical limitation on auditor's ability to obtain audit evidence.

Management may not provide complete information as requested by auditor. There is no way by which auditor can force management to provide complete information as may be requested by auditor. In case he is not provided with required information, he can only report. It is an example of legal limitation on auditor's ability to obtain audit evidence.

The management may consist of dishonest and unscrupulous people and may be, itself, involved in fraud. It may be engaged in concealing fraud by designing sophisticated and carefully organized schemes which may be hard to detect by the auditor. It may produce fabricated documents before auditor to lead him to believe that audit evidence is valid. However, in reality, such documents could be fake or non-genuine.

An auditor is not an expert in authentication of documents. Therefore, he may be led to accept invalid audit evidence on the basis of unauthentic documents.

It is quite possible that entity may have entered into some transactions with related parties. Such transactions may be only paper transactions and may not have actually occurred. The auditor may not be aware of such related party relationships or audit procedures may not be able to detect probable wrong doings in such transactions.

In case of ABC Ltd., the financial statements involve management judgements, the auditor uses sampling rather than examining every transaction, internal controls may be overridden through collusion, documents provided by management may not always be genuine, and undisclosed related party relationships or transactions may not be detected through audit procedures.

The statement made by the Audit Assistant is incorrect. Even after performing appropriate audit procedures and obtaining sufficient appropriate audit evidence, the auditor cannot obtain absolute assurance that the financial statements are free from material

misstatement due to fraud or error. The objective of an audit is therefore to obtain reasonable assurance, and not absolute assurance.

10. **Relationship between Audit Strategy and Audit Plan:** Audit strategy sets the broad overall approach to the audit whereas audit plan addresses the various matters identified in the overall audit strategy. Audit strategy determines scope, timing and direction of audit. Audit plan describes how strategy is going to be implemented. The audit plan is more detailed than the overall audit strategy that includes the nature, timing and extent of audit procedures to be performed by engagement team members. Planning for these audit procedures takes place over the course of the audit as the audit plan for the engagement develops.

Once the overall audit strategy has been established, an audit plan can be developed to address the various matters identified in the overall audit strategy, taking into account the need to achieve the audit objectives through the efficient use of the auditor's resources.

The establishment of the overall audit strategy and the detailed audit plan are not necessarily discrete or sequential processes, but are closely inter-related since changes in one may result in consequential changes to the other.

In XYZ Ltd., the Engagement Partner first determines the broad scope, timing and direction of the audit, while the Audit Manager develops the detailed audit plan covering the nature, timing and extent of audit procedures. However, the subsequent changes in the assessed risks and the identification of an unexpected revenue recognition issue may require corresponding changes in the audit plan and, where necessary, the overall audit strategy.

The overall audit strategy and the detailed audit plan are closely inter-related and are not necessarily separate or sequential processes. Changes arising during the audit may result in consequential changes to either the audit strategy or the audit plan. Therefore, the view that the strategy, once established, must remain unchanged and that the two processes are completely separate is not correct.

11. As part of the risk assessment, the auditor shall determine whether any of the risks identified are, in the auditor's judgment, a significant risk. In

exercising judgment as to which risks are significant risks, the auditor shall consider at least the following:

(a) Whether the risk is a risk of fraud

(b) Whether the risk is related to recent significant economic, accounting, or other developments like changes in regulatory environment, etc., and, therefore, requires specific attention

(c) The complexity of transactions

(d) Whether the risk involves significant transactions with related parties

(e) The degree of subjectivity in the measurement of financial information related to the risk, especially those measurements involving a wide range of measurement uncertainty and

(f) Whether the risk involves significant transactions that are outside the normal course of business for the entity, or that otherwise appear to be unusual.

In PQR Ltd., the circumstances identified by the auditor correspond to several factors relevant for determining significant risks.

The above factors indicate that the identified risks require careful evaluation by the auditor to determine whether they constitute significant risks. The determination is based on the auditor's professional judgment after considering the nature and circumstances of each identified risk.

12. Further Audit Procedures comprise of:

(i) Tests of controls, when required by the SAs or when the auditor has chosen to do so; and

(ii) Substantive procedures, including tests of details and substantive analytical procedures.

(i) Tests of controls: Test of controls may be defined as an audit procedure designed to evaluate the operating effectiveness of controls in preventing, or detecting and correcting, material misstatements at the assertion level.

In MNO Ltd., the auditor selects a sample of sales transactions to determine whether the prescribed approval and dispatch controls operated consistently throughout the year. Since the purpose of this procedure is to evaluate the operating effectiveness of controls, it represents a test of controls.

(ii) Substantive Procedures – Tests of details and Substantive analytical procedures: Substantive procedures are designed to detect material misstatements at the assertion level. They comprise tests of details and substantive analytical procedures.

Designing substantive procedures includes identifying conditions relevant to the purpose of the test that constitute a misstatement in the relevant assertion.

In other words, Substantive procedure may be defined as an audit procedure designed to detect material misstatements at the assertion level.

Substantive procedures comprise:

(i) Tests of details (of classes of transactions, account balances, and disclosures), and

(ii) Substantive analytical procedures.

In relation to trade receivables, the auditor verifies selected customer balances with supporting documents. Since this procedure is directed towards detecting possible misstatements in the account balance, it represents a test of details. Further, the comparison of the current year's receivables ageing pattern with that of the previous year and investigation of significant or unusual movements represents a substantive analytical procedure, as it is designed to identify possible material misstatements through analysis of relationships and trends.

13. As per SA 501, "Audit Evidence—Specific Considerations for Selected Items", if physical inventory counting is conducted at a date other than the date of the financial statements, the auditor shall perform additional audit procedures to obtain audit evidence about whether changes in inventory between the count date and the date of the financial statements are properly recorded.

Relevant matters for consideration when designing audit procedures to obtain audit evidence about whether changes in inventory amounts between the count date, or dates, and the final inventory records are properly recorded include:

(i) Whether the perpetual inventory records are properly adjusted.

(ii) Reliability of the entity's perpetual inventory records.

(iii) Reasons for significant differences between the information obtained during the physical count and the perpetual inventory records.

SA 505, "External Confirmations", if management refuses to allow the auditor to send a confirmation request, the auditor shall:

(a) Inquire as to management's reasons for the refusal, and seek audit evidence as to their validity and reasonableness;

(b) Evaluate the implications of management's refusal on the auditor's assessment of the relevant risks of material misstatement, including the risk of fraud, and on the nature, timing and extent of other audit procedures; and

(c) Perform alternative audit procedures designed to obtain relevant and reliable audit evidence.

If the auditor concludes that management's refusal to allow the auditor to send a confirmation request is unreasonable, or the auditor is unable to obtain relevant and reliable audit evidence from alternative audit procedures, the auditor shall communicate with those charged with governance in accordance with SA 260. The auditor also shall determine the implications for the audit and the auditor's opinion in accordance with SA 705.

14. CA Nisha needs to consider the following attributes while verifying for depreciation and amortisation expenses:

(i) Obtain the understanding of entity's accounting policy related to depreciation and amortisation.

(ii) Ensure the Company policy for charging depreciation and amortisation is as per the relevant provisions of the Companies Act, 2013/ applicable accounting standards.

(iii) The accounting policy has been applied consistently year on year. Any change in the accounting policy has been adequately disclosed.

(iv) Whether the depreciation has been calculated after making adjustment of residual value from the cost of the assets.

(v) Whether depreciation and amortisation charges are valid.

(vi) Whether depreciation and amortisation charges are accurately calculated and recorded.

(vii) Whether all depreciation and amortisation charges are recorded in the appropriate period.

(viii) Whether each part of an item of PPE with a cost that is significant in relation to the total cost of the item have been depreciated separately. Example: It may be appropriate to depreciate separately the airframe and engines of an aircraft, whether owned or subject to a finance lease.

(ix) Whether the most appropriate depreciation method for each separately depreciable component has been used.

15. The auditor shall assemble the audit documentation in an audit file and complete the administrative process of assembling the final audit file on a timely basis after the date of the auditor's report.

SQC 1 "Quality Control for Firms that perform Audits and Review of Historical Financial Information, and other Assurance and related services", requires firms to establish policies and procedures for the timely completion of the assembly of audit files.

An appropriate time limit within which to complete the assembly of the final audit file is ordinarily not more than 60 days after the date of the auditor's report. The completion of the assembly of the final audit file after the date of the auditor's report is an administrative process that

does not involve the performance of new audit procedures or the drawing of new conclusions.

Changes may, however, be made to the audit documentation during the final assembly process, if they are administrative in nature.

Examples of such changes include:

- Deleting or discarding superseded documentation.
- Sorting, collating and cross-referencing working papers.
- Signing off on completion checklists relating to the file assembly process.
- Documenting audit evidence that the auditor has obtained, discussed and agreed with the relevant members of the engagement team before the date of the auditor's report.

After the assembly of the final audit file has been completed, the auditor shall not delete or discard audit documentation of any nature before the end of its retention period.

SQC 1 requires firms to establish policies and procedures for the retention of engagement documentation. The retention period for audit engagements ordinarily is no shorter than seven years from the date of the auditor's report, or, if later, the date of the group auditor's report.

The activities undertaken during July and August, such as removing superseded documents, sorting and cross-referencing working papers and completing checklists, are administrative activities that may be undertaken during the assembly of the final audit file. Similarly, placing in the file audit evidence that had already been obtained and agreed before the auditor's report is permissible.

However, replacing the original working paper after completion of the final audit file in order to reflect a new conclusion is not an administrative change permitted during final file assembly. Further, the original documentation cannot be deleted or discarded after completion of the final audit file.

16. Significant deficiency in internal control – A deficiency or combination of deficiencies in internal control that, in the auditor's professional

judgment, is of sufficient importance to merit the attention of those charged with governance.

The significance of a deficiency or a combination of deficiencies in internal control depends not only on whether a misstatement has actually occurred, but also on the likelihood that a misstatement could occur and the potential magnitude of the misstatement. Significant deficiencies may, therefore, exist even though the auditor has not identified misstatements during the audit.

Examples of indicators of significant deficiencies in internal control

- Evidence of ineffective aspects of the control environment, such as:
    - Indications that significant transactions in which management is financially interested are not being appropriately scrutinised by those charged with governance.
    - Identification of management fraud, whether or not material, that was not prevented by the entity's internal control.
    - Management's failure to implement appropriate remedial action on significant deficiencies previously communicated.
- Absence of a risk assessment process within the entity where such a process would ordinarily be expected to have been established.
- Evidence of an ineffective entity risk assessment process, such as management's failure to identify a risk of material misstatement that the auditor would expect the entity's risk assessment process to have identified.
- Evidence of an ineffective response to identified significant risks (e.g., absence of controls over such a risk).
- Misstatements detected by the auditor's procedures that were not prevented, or detected and corrected, by the entity's internal control.
- Disclosure of a material misstatement due to error or fraud as prior period items in the current year's Statement of Profit and Loss.

- Evidence of management's inability to oversee the preparation of the financial statements.

In TUV Ltd., the deficiencies identified by the auditor relate to several areas that are relevant when considering whether deficiencies in internal control constitute significant deficiencies. The matters concerning inadequate scrutiny of significant transactions involving management, ineffective prevention and detection of fraud, failure to address previously communicated deficiencies, weaknesses in the risk assessment process, inadequate response to identified risks and deficiencies in controls over financial reporting are relevant indicators in assessing the significance of the deficiencies.

The auditor should not determine the significance merely by considering whether an actual material misstatement has been identified. The auditor should also consider the likelihood that a misstatement could occur and the potential magnitude of such misstatement. Therefore, the absence of an identified material misstatement does not, by itself, prevent a deficiency from being regarded as significant. Thus, the management's view is not correct.

17. **Emphasis of Matter Paragraphs in the Auditor's Report:** If the auditor considers it necessary to draw users' attention to a matter presented or disclosed in the financial statements that, in the auditor's judgement, is of such importance that it is fundamental to users' understanding of the financial statements, the auditor shall include an Emphasis of Matter paragraph in the auditor's report provided:

(i) The auditor would not be required to modify the opinion in accordance with SA 705 (Revised) as a result of the matter; and

(ii) When SA 701 applies, the matter has not been determined to be a key audit matter to be communicated in the auditor's report.

When the auditor includes an Emphasis of Matter paragraph in the auditor's report, the auditor shall:

(a) Include the paragraph within a separate section of the auditor's report with an appropriate heading that includes the term "Emphasis of Matter";

(b) Include in the paragraph a clear reference to the matter being emphasized and to where relevant disclosures that fully describe the matter can be found in the financial statements. The paragraph shall refer only to information presented or disclosed in the financial statements; and

(c) Indicate that the auditor's opinion is not modified in respect of the matter emphasized.

18. Considerations that should be kept in view by the auditor while conducting the audit of a society are:

(a) The auditor should ascertain governing legislation of society i.e. the Societies Registration Act, 1860 or any applicable state law under which it has been registered.

(b) Object of society needs to be ascertained from its memorandum of association/bye laws. Its activities may include charitable, social, cultural or educational activities.

(c) Ascertain whether society has obtained registration under the Foreign Contribution (Regulation) Act, 2010 in case foreign contributions are received.

(d) Ascertain whether it is also registered under relevant provisions of the Income Tax Act which may make it eligible for tax exemption on its income.

(e) Obtain an understanding of internal control to design audit procedures with special reference to donations and various expenditures incurred in relation to achievements of objects of society.

(f) Evaluate appropriateness of accounting policies with special reference to donations and grants. Also evaluate accounting policies in relation to specific grants.

(g) In case some expenses incurred by society are reimbursed by donors, ascertain how these are recognized in financial statements.

(h) Ascertain, if any inquiry has been held by Registrar under applicable law in the working or financial condition of society and its implications for auditor's opinion.

(i) Ascertain all cases of irregular, illegal or improper expenditure or failure or omission to recover monies or other property belonging to society or of loss or waste of money or other property thereof.

(j) Ascertain whether such expenditure or waste was caused in consequence of breach of trust or misapplication or any other misconduct on the part of governing body.

In the case of Vidya Vikas Society, the auditor should first ascertain the applicable State societies law and examine the objects stated in its memorandum and bye-laws, particularly since the Society has recently amended some of its activities. As the Society receives contributions from outside India, the auditor should ascertain whether it has obtained the required registration under the Foreign Contribution (Regulation) Act, 2010. The auditor should also verify its registration under the relevant provisions of the Income-tax Act in view of the tax exemption claimed by the Society.

The auditor should obtain an understanding of internal controls relating to donations and expenditure and evaluate the accounting policies relating to donations, grants and specific grants. Since certain expenditure is reimbursed by donors, the auditor should ascertain its appropriate recognition in the financial statements.

The inquiry conducted by the Registrar should also be considered and its implications for the auditor's opinion should be evaluated. Further, the auditor should ascertain the nature of the irregular payments, amounts not recovered and any loss or waste of the Society's money or property. Where such expenditure or waste is identified, the auditor should further ascertain whether it resulted from breach of trust, misapplication or any other misconduct by the governing body.

19. Classification of advances

Categories of NPAs	Provision required
Substandard Assets: Would be one, which has remained NPA for a period less than or equal to 12 months.	15%
Doubtful Assets: Would be one, which has remained in the substandard category for a period of 12 months. Sub-categories: Doubtful up to 1 Year (D1) Doubtful 1 to 3 Years (D2) Doubtful more than 3 Years (D3)	 (Secured + Unsecured) 25%+100% 40%+100% 100%+100%
Loss Assets: Would be one, where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly.	100%

Advance A : The advance has remained NPA for 9 months. Therefore, it is a Substandard Asset.

Provision = ₹ 80 lakh × 15% = ₹ 12 lakh

Advance B: The advance has remained in the doubtful category for 20 months. Therefore, it falls under Doubtful Assets – D2, i.e., doubtful for more than 1 year but up to 3 years.

Secured portion = ₹ 80 lakh

Unsecured portion = ₹ 120 lakh − ₹ 80 lakh = ₹ 40 lakh

Provision on secured portion = ₹ 80 lakh × 40% = ₹ 32 lakh

Provision on unsecured portion = ₹ 40 lakh × 100% = ₹ 40 lakh

Total provision = ₹ 72 lakh

Advance C: The advance has remained in the doubtful category for 3 years and 8 months. Therefore, it falls under Doubtful Asset – D3, i.e., doubtful for more than 3 years.

Secured portion = ₹ 1.20 crore

Unsecured portion = ₹ 2 crore − ₹ 1.20 crore = ₹ 80 lakh

Provision on secured portion = ₹ 1.20 crore × 100% = ₹ 1.20 crore

Provision on unsecured portion = ₹ 80 lakh × 100% = ₹ 80 lakh

Total provision = ₹ 2 crore

Advance D: Loss has been identified by the RBI, but the amount has not been completely written off. Therefore, it is a Loss Asset.

Provision = ₹ 60 lakh × 100% = ₹ 60 lakh

Adequacy of total provision required

Advance	Amount
A	₹ 12 lakh
B	₹ 72 lakh
C	₹ 200 lakh
D	₹ 60 lakh
Total	**₹ 344 lakh i.e.₹ 3.44 crore**

Provision already made by management = ₹ 1.40 crore

Therefore, additional provision required:

₹ 3.44 crore − ₹ 1.40 crore = ₹ 2.04 crore

20. **(i)** **Self-interest threat:** Self-interest threats occur when an auditing firm, its partner or associate could benefit from a financial interest in an audit client.

(ii) **Intimidation threat:** Intimidation threats occur when auditors are deterred from acting objectively with an adequate degree of professional skepticism.

(iii) **Self-review threat:** Self-review threats occur when during a review of any judgement or conclusion reached in a previous audit or non-audit engagement, or when a member of the audit team was previously a director or senior employee of the client.

(iv) **Familiarity threat:** Familiarity threats are self-evident and occur when auditors form relationships with the client where they end up being too sympathetic to the client's interests.

(v) **Advocacy threat:** Advocacy threats occur when the auditor promotes, or is perceived to promote, a client's opinion to a point where people may believe that objectivity is getting compromised

PAPER – 6:
FINANCIAL MANAGEMENT AND STRATEGIC MANAGEMENT

6A: FINANCIAL MANAGEMENT

QUESTIONS

PART I - Case Scenario based MCQs

Cost of Capital, Investment Decisions, Operating and Financial Leverage

1. Solaris Components Ltd., a diversified auto-parts manufacturer, is evaluating entry into a new line of business: electric vehicle (EV) charging modules. The new business is riskier than the firm's existing operations. The CFO has asked the analyst to evaluate the project using a project-specific discount rate rather than the firm's own WACC. All amounts are in ₹ crore.

Company and market data

Item	Data
Existing debt (market value) / Equity (market value)	₹ 400 crore/₹ 600 crore
Pre-tax cost of debt (applicable to all debt)	10.0%
Solaris equity beta (existing business)	1.20
Risk-free rate / Equity market risk premium	7.0% / 6.0%
Solaris current EBIT (existing business)	₹150 crore
Corporate tax rate	30%

Based on listed EV charging companies, the analyst estimates the equity beta of the EV charging project at 1.50. This beta already reflects the project's business and financial risk, so no further adjustment is required. The project will be financed at a target capital structure of 40% debt and 60% equity (market values), which is also the firm's existing capital structure.

Project data

Machinery cost ₹ 200 crore, paid at time 0. Additional working capital of ₹ 20 crore is needed at time 0 and is fully recovered at the end of year 4.

Life 4 years. Depreciation is straight-line to a nil book value. The machinery can be sold at the end of year 4 for ₹ 20 crore (taxable gain at 30%).

Year-2 sales are ₹ 250 crore, variable costs are 60% of sales and fixed cash operating costs are ₹ 20 crore, giving the year-2 EBITDA below. EBITDA for the four years:

Year	1	2	3	4
EBITDA (₹ crore)	50	80	90	70

PVIF (three decimals):

Discount rate	Year 1	Year 2	Year 3	Year 4
12.40%	0.890	0.792	0.704	0.627
11.32%	0.898	0.807	0.725	0.651

i. The existing WACC of Solaris is closest to:

(A) 12.52%

(B) 11.32%

(C) 14.20%

(D) 9.88%

ii. The cost of equity appropriate for the EV charging project is closest to:

(A) 9.0%

(B) 14.2%

(C) 19.5%

(D) 16.0%

iii. The project-specific WACC is closest to:

(A) 12.40%

(B) 11.32%

(C) 13.60%

(D) 14.20%

iv. The total cash inflow in year 4, including terminal items, is:

(A) ₹ 64 crore

(B) ₹ 84 crore

(C) ₹ 98 crore

(D) ₹ 104 crore

v. Using the project-specific WACC, the NPV of the project is closest to:

(A) +₹ 2.55 crore

(B) –₹ 2.91 crore

(C) –₹ 24.23 crore

(D) +₹ 0.85 crore

vi. Which of the following conclusions is most appropriate?

(A) Accept the project, because the NPV at the firm's own WACC is positive and project-specific risk can be diversified away within the firm.

(B) Reject at the project-specific rate, but accept at the firm's WACC, because the firm's WACC reflects diversification benefits across its businesses.

(C) Reject the project, because both discount rates give a negative NPV.

(D) Reject the project. Its NPV at the project-specific rate is negative, whereas the firm's WACC would show a positive NPV and wrongly accept a project with higher business risk.

vii. In year 2, using EBIT after depreciation, the degree of operating leverage and the effect of a 9% fall in year-2 sales on EBIT are closest to:

(A) DOL 3.33; EBIT falls by 30%

(B) DOL 1.25; EBIT falls by 11.3%

(C) DOL 8.33; EBIT falls by 75%

(D) DOL 0.30; EBIT falls by 2.7%

viii. For the existing business of Solaris, the degree of financial leverage and the effect of a 10% fall in EBIT on EPS are closest to:

(A) DFL 1.15; EPS falls by 11.5%

(B) DFL 1.95; EPS falls by 19.5%

(C) DFL 1.36; EPS falls by 13.6%

(D) DFL 3.75; EPS falls by 37.5%

Leverage

2. A company has the following details:

Sales	₹ 50,00,000
Variable Costs	₹ 30,00,000
Fixed Operating Costs	₹ 10,00,000
Interest Expense	₹ 5,00,000

If sales increase by 10%, what will be the percentage increase in Earnings Per Share (EPS)?

(A) 10%

(B) 20%

(C) 30%

(D) 40%

Dividend

3. XYZ Ltd. has the following data:

Earnings per share (EPS): ₹ 10

Return on equity (ROE): 18%

Capitalisation rate (Ke): 15%

Dividend payout ratio: 60%

Based on Gordon's Model, what would be the likely effect on the market price per share if the company increases its dividend payout ratio to 80%, assuming all other factors remain constant?

(A) Market price per share will increase

(B) Market price per share will decrease

(C) Market price per share will remain unchanged

(D) Cannot be determined due to insufficient information

Division B: Descriptive Questions

Ratio Analysis

4. The following ratios relate to Vihaan Ltd. for the year ended 31 March 2026. Net sales (all on credit) are ₹ 30,00,000 and the company uses a 360-day year.

Ratio	Value
Total asset turnover (Sales / Total assets)	1.2 times
Fixed asset turnover (Sales / Fixed assets)	2.0 times
Current ratio	2.5 : 1
Average collection period (on credit sales)	60 days
Inventory turnover (COGS / Inventory)	6 times
Gross profit margin	30%
Long-term debt / Net worth	0.40 : 1
EBIT margin	10%
Interest rate on long-term debt / Tax rate	12% / 30%

The equity share capital is ₹ 10,00,000 and the balance of net worth consists of reserves. There are no other liabilities besides long-term debt and current liabilities, and the only current assets are cash, debtors and inventory.

Required:

(a) Prepare the balance sheet of the company.

(b) Prepare the income statement up to profit after tax.

(c) Compute ROE and ROCE.

Cost of Capital

5. Quantum Ltd. follows a target capital structure of 40% debt, 10% preference shares and 50% equity. The following information is available:

(i) Debt: the first ₹ 50 lakh can be raised at 9% pre-tax; any further debt will cost 11% pre-tax.

(ii) Preference shares: 10% preference shares of ₹ 100 each, which will net the company ₹ 95 per share after flotation costs.

(iii) Equity: current market price ₹ 60; expected dividend next year D1 = ₹ 4.50; growth 8% p.a. Retained earnings of ₹ 60 lakh are available. New equity shares involve a flotation cost of 10% of the issue price.

(iv) Tax rate is 30%. The following independent projects are available: A (₹ 60 lakh, IRR 14%), B (₹ 50 lakh, IRR 13%), C (₹ 40 lakh, IRR 12.5%), D (₹ 30 lakh, IRR 11%).

Required:

(a) Compute the specific cost of each source.

(b) Compute the break points.

(c) Prepare the marginal cost of capital (MCC) schedule.

(d) Determine which projects should be accepted.

Capital Structure

6. Zenith Ltd. has the following capital structure: 10 lakh equity shares of ₹ 10 each (₹ 100 lakh) and 10% debentures of ₹ 40 lakh. The company needs ₹ 50 lakh for expansion and has two alternatives: Plan A: issue 2 lakh equity shares at ₹ 25 each; Plan B: issue 12% debentures of ₹ 50 lakh. The tax rate is 30%. Expected EBIT after expansion is ₹ 30 lakh.

   Required:

   (a) Compute EPS under each plan at the expected EBIT.

   (b) Compute the EBIT–EPS indifference point.

   (c) Compute the financial break-even point under each plan.

   (d) Advise the company on the choice of plan.

Leverage

7. The following information relates to Gamma Ltd.: Sales 25,000 units at ₹ 40 per unit; variable cost ₹ 24 per unit; fixed operating cost ₹ 1,60,000; 10% debt of ₹ 4,00,000; tax rate 30%; 1,00,000 equity shares of ₹ 10 each.

   Required:

   (a) Prepare the income statement up to EPS.

   (b) Compute the degree of operating leverage (DOL), financial leverage (DFL) and combined leverage (DCL).

   (c) If sales increase by 20%, compute the new EPS and verify the result using DCL. (d) Compute the break-even point in units and the margin of safety.

Dividend Decision

8. The following information relates to Lotus Ltd.: earnings per share (EPS) ₹ 10; cost of equity capital (Ke) 12%; return on investment (r) 15%.

   Required:

   (a) Using Walter's model, compute the market price per share at dividend payout ratios of 0%, 40% and 100%.

(b) Identify the optimum payout ratio and explain.

(c) Using Gordon's model, compute the price at retention ratios of 0%, 40% and 60%. (d) If r were 10% instead of 15%, what would be the optimum payout under Walter's model?

Capital Budgeting

9. Sterling Ltd. is considering replacing an existing machine. Details are as follows: (₹ lakh)

Particulars	Old machine	New machine
Book value (WDV) / Cost	6	25
Remaining / expected life (years)	5	5
Current market (resale) value	3	–
Scrap value at end of year 5	Nil	5
Annual depreciation for tax (straight-line)	1.2	4.0

The new machine will save ₹ 8 lakh a year in pre-tax operating costs. Tax rate is 30% and the loss on sale of the old machine can be set off against other income. Cost of capital is 12%. PVIF at 12% for years 1–5: 0.893, 0.797, 0.712, 0.636, 0.567 (cumulative PVIF = 3.605).

Required:

(a) Compute the net initial outlay.

(b) Compute the incremental annual cash flows and the NPV of replacement.

(c) Compute the minimum pre-tax annual saving at which the company would be indifferent, and the margin of safety on the saving.

(d) Advise the management

Working Capital

10. TMT Limited is commencing a new project for manufacture of electric toys. The following cost information has been ascertained for annual production of 60,000 units at full capacity:

		Amount per unit (₹)
Raw materials		20
Direct labour		15
Manufacturing overheads:		
	₹	
Variable	15	
Fixed	10	25
Selling and Distribution overheads:		
	₹	
Variable	3	
Fixed	1	4
Total cost		64
Profit		16
Selling price		80

In the first year of operations expected production and sales are 40,000 units and 35,000 units respectively. To assess the need of working capital, the following additional information is available:

(i) Stock of Raw materials 3 months consumption.

(ii) Credit allowable for debtors 1½ months.

(iii) Credit allowable by creditors 4 months.

(iv) Lag in payment of wages 1 month.

(v) Lag in payment of overheads ½ month.

(vi) Cash in hand and Bank is expected to be ₹ 60,000.

(vii) Provision for contingencies is required @ 10% of working capital requirement including that provision.

You are required to PREPARE a projected statement of working capital requirement for the first year of operations. Debtors are taken at cost.

11. (a) Pioneer Ltd. is considering relaxing its credit policy. Present annual credit sales are ₹ 2,400 lakh with an average collection period of 30 days and bad debts of 1% of sales. Under the proposed policy, credit sales would rise to ₹ 3,000 lakh, average collection period would increase to 60 days and bad debts would be 2.5% of sales. Variable costs are 70% of sales. The required pre-tax return on investment in receivables is 15%. Assume a 365-day year. Advise whether the proposal should be adopted.

(b) A supplier offers terms of 2/10 net 45. Compute the annualised cost of forgoing the cash discount. Should the buyer take the discount if it can borrow from a bank at 14%?

(c) Uma Ltd. needs ₹ 12,00,000 cash a year, spread evenly. Cost per conversion of securities into cash is ₹ 3,000 and the interest rate on marketable securities is 8% p.a. Using the Baumol model, find the optimum conversion size, number of conversions and total cost.

Miscellaneous

12. (a) DISCUSS the Inter relationship between investment, financing and dividend decisions.

(b) What is debt securitisation? EXPLAIN the basics of debt securitisation process.

(c) EXPLAIN the concept of discounted payback period.



SUGGESTED ANSWERS/HINTS

Division A: Case Scenario

1. i. (B) (11.32%). Cost of equity (CAPM) = 7% + 1.20 × 6% = 14.2%. After-tax cost of debt = 10% × (1 – 0.30) = 7%. Weights: debt 400/1,000 = 40%, equity 60%. WACC = 0.40 × 7% + 0.60 × 14.2% = 2.80% + 8.52% = **11.32%**.

ii. **(D) (16.0%).** The project's own beta must be used, not the firm's 1.20, because the new business has different risk. Ke = Rf + β × ERP = 7% + 1.50 × 6% = 7% + 9% = **16.0%**.

iii. **(A) (12.40%).** After-tax Kd = 7%. WACC = 0.40 × 7% + 0.60 × 16.0% = 2.80% + 9.60% = **12.40%**.

iv. **(C) (₹ 98 crore).** Depreciation = 200 / 4 = ₹ 50 crore. Year 4: EBITDA 70 – dep 50 = PBT 20; tax 6; PAT 14; CFAT = 14 + 50 = ₹ 64 crore. The terminal items are working capital recovered ₹ 20 crore and the after-tax salvage value. Salvage value of ₹ 20 crore compared with a nil book value gives a taxable gain, so after-tax salvage = 20 × (1 – 0.30) = ₹ 14 crore. Total = 64 + 20 + 14 = **₹ 98 crore**.

v. **(B) (–₹ 2.91 crore).** Initial outlay = 200 + 20 = ₹ 220 crore.

Year	EBITDA	Dep.	PBT	Tax 30%	CFAT	Terminal	Total	PV @12.40%
1	50	50	0	0	50	–	50	44.50
2	80	50	30	9	71	–	71	56.23
3	90	50	40	12	78	–	78	54.91
4	70	50	20	6	64	34	98	61.45
Total PV of inflows								**217.09**
NPV (less ₹ 220 crore)								**-2.91**

NPV = **-2.91**, so the project destroys value at its risk-adjusted rate.

vi. **(D)** At the firm's WACC of 11.32%, NPV = 222.55 – 220 = **+ 2.55 crore**, which would lead to acceptance. At the project-specific rate of 12.40%, NPV is -2.91 crore, so the project should be rejected. The EV business has an equity beta of 1.50 against 1.20 for Solaris's existing business, so it is riskier and deserves a higher hurdle rate.

vii. **(A)** Year-2 contribution = 250 × 40% = ₹ 100 crore. EBITDA = 100 – 20 = 80; EBIT = 80 – 50 = ₹ 30 crore. DOL = Contribution /

EBIT = 100 / 30 = **3.33**. A 9% fall in sales lowers EBIT by 3.33 × 9% = **30%**, to ₹ 21 crore.

viii. **(C)** Interest on existing debt = 400 × 10% = ₹ 40 crore. DFL = EBIT / (EBIT – Interest) = 150 / (150 – 40) = 150 / 110 = **1.36**. A 10% fall in EBIT lowers EPS by 1.36 × 10% = **13.6%**.

2. (D) 40%

Calculation of Degree of Operating Leverage (DOL)

Contribution = Sales - Variable Costs

= ₹ 50,00,000 - ₹ 30,00,000 = ₹ 20,00,000

EBIT = Contribution - Fixed Costs

= ₹ 20,00,000 - ₹ 10,00,000 = ₹ 10,00,000

Calculation of Degree of Combined Leverage (DCL)

$$DCL = \frac{\text{Contribution}}{\text{EBT}}$$

= ₹ 20,00,000 / ₹ 5,00,000 = 2

Applying DCL to % change in sales

If sales increase by 10%, EPS will increase by:

DCL × % change in sales = 4 × 10% = 40%

3. (B) Market price per share will decrease

According to Gordon's Model:

P = [E × (1 – b)] / (ke – b × r)

Where:

E = EPS = ₹ 10

b = Retention ratio = 1 – Dividend payout ratio

r = ROE = 18%

ke = Cost of equity = 15%

If payout ratio increases from 60% to 80%, then:

Retention ratio b falls from 40% to 20%

Hence, b × r i.e. growth rate becomes smaller (i.e., 0.2 × 18% = 3.6% instead of 7.2%)

Denominator (ke – b×r) becomes larger so price decreases.

So, increasing payout leads to a decrease in market price, since the firm is reducing investment in high-return (18%) projects while the cost of capital is lower (15%).

Division B: Descriptive Questions

4. Working Notes:

(1) Total assets = 30,00,000 / 1.2 = ₹ 25,00,000.

(2) Fixed assets = 30,00,000 / 2.0 = ₹ 15,00,000; hence current assets = 25,00,000 – 15,00,000 = ₹ 10,00,000.

(3) Current liabilities = 10,00,000 / 2.5 = ₹ 4,00,000.

(4) Net worth + Long-term debt = 25,00,000 – 4,00,000 = ₹ 21,00,000; with debt = 0.40 × net worth, net worth = 21,00,000 / 1.4 = ₹ 15,00,000 and debt = ₹ 6,00,000.

(5) Debtors = 30,00,000 × 60 / 360 = ₹ 5,00,000.

(6) COGS = 70% × 30,00,000 = ₹ 21,00,000; Inventory = 21,00,000 / 6 = ₹ 3,50,000.

(7) Cash = 10,00,000 – 5,00,000 – 3,50,000 = ₹ 1,50,000.

(a) Balance sheet as at 31 March 2026

Liabilities	₹	Assets	₹
Equity share capital	10,00,000	Fixed assets	15,00,000
Reserves and surplus	5,00,000	Inventory	3,50,000
Long-term debt	6,00,000	Debtors	5,00,000
Current liabilities	4,00,000	Cash	1,50,000
Total	**25,00,000**	**Total**	**25,00,000**

(b) **Income statement**

Particulars	₹
Net sales	30,00,000
Less: COGS (70%)	21,00,000
Gross profit (30%)	9,00,000
EBIT (10% of sales)	**3,00,000**
Less: Interest (12% × 6,00,000)	72,000
PBT	2,28,000
Less: Tax @ 30%	68,400
PAT	**1,59,600**

(c) **Returns**

ROE = PAT / Net worth = 1,59,600 / 15,00,000 = **10.64%**

ROCE = EBIT / (Net worth + Long-term debt) = 3,00,000 / 21,00,000 = **14.29%**

Comment: ROCE (14.29%) exceeds the post-tax cost of debt, so leverage is favourable and ROE exceeds the return on assets (PAT/Total assets = 6.38%). Even so, ROE is modest because the net margin is thin at 5.32%, and the company holds relatively large fixed assets.

5. **(a)** **Specific costs**

Debt (first ₹ 50 lakh): 9% × (1 – 0.30) = **6.30%**; Debt (above ₹ 50 lakh): 11% × 0.70 = **7.70%**

Preference: 10 / 95 = **10.53%**

Retained earnings: D1/P0 + g = 4.50 / 60 + 0.08 = **15.50%**

New equity: D1 / [P0 (1 – f)] + g = 4.50 / (60 × 0.90) + 0.08 = 4.50/ 54 + 0.08 = **16.33%**

(b) **Break points** = Amount of the cheaper source available / Weight of that source in the capital structure

Retained earnings: 60 / 0.50 = **₹ 120 lakh** (beyond this, equity must be raised by a new issue).

Low-cost debt: 50 / 0.40 = **₹ 125 lakh** (beyond this, debt costs 11% pre-tax).

(c) MCC schedule

Range of total financing (₹ lakh)	Debt (40%)	Preference (10%)	Equity (50%)	MCC	Basis
0 – 120	0.4 × 6.30	0.1 × 10.53	0.5 × 15.50 (RE)	11.32%	Retained earnings
120 – 125	0.4 × 6.30	0.1 × 10.53	0.5 × 16.33 (new)	11.74%	New equity
Above 125	0.4 × 7.70	0.1 × 10.53	0.5 × 16.33 (new)	12.30%	Costlier debt

(d) Project selection (rank by IRR; accept while IRR ≥ MCC of the last rupee raised)

Project	IRR	Investment (₹ lakh)	Cumulative (₹ lakh)	MCC at that level / Decision
A	14.0%	60	60	11.32% – Accept
B	13.0%	50	110	11.32% – Accept
C	12.5%	40	150	Up to 12.30% – Accept (12.5% > 12.30%)
D	11.0%	30	180	12.30% – Reject (11.0% < 12.30%)

Conclusion: Projects A, B and C (total ₹ 150 lakh) should be accepted. Project C is accepted because its IRR of 12.5% exceeds even the highest MCC (12.30%) applicable to the last tranche of

₹ 150 lakh. Project D is rejected as its IRR is below the MCC. Note that the hurdle rate rises in steps; using a single average WACC would give wrong decisions on projects such as C.

6. Working Note – Interest and shares

	Existing	Plan A	Plan B
Interest on 10% debentures (₹ 40 lakh)	4.0	4.0	4.0
Interest on 12% debentures (₹ 50 lakh)	–	–	6.0
Total interest	4.0	4.0	10.0
No. of equity shares (lakh)	10	10 + 2 = 12	10

(a) EPS at EBIT of ₹ 30 lakh

Particulars (₹ lakh)	Plan A	Plan B
EBIT	30.00	30.00
Less: Interest	4.00	10.00
PBT	26.00	20.00
Less: Tax @ 30%	7.80	6.00
PAT	18.20	14.00
No. of shares (lakh)	12	10
EPS (₹)	**1.52**	**1.40**

(b) Indifference point: At the indifference EBIT (X), EPS under both plans is equal.

$(X - 4)(1 - 0.30) / 12 = (X - 10)(1 - 0.30) / 10$

$10 (X - 4) = 12 (X - 10) \Rightarrow 10X - 40 = 12X - 120 \Rightarrow 2X = 80 \Rightarrow$ **X = ₹ 40 lakh**

Check: EPS under Plan A = (36 × 0.7) / 12 = ₹ 2.10; EPS under Plan B = (30 × 0.7) / 10 = ₹ 2.10.

(c) **Financial break-even point** (EBIT at which EPS = 0, i.e. EBIT equals total interest, since there is no preference dividend): Plan A = **₹ 4 lakh**; Plan B = **₹ 10 lakh**.

(d) **Advice:** At the expected EBIT of ₹ 30 lakh (below the indifference point of ₹ 40 lakh), Plan A gives a higher EPS (₹ 1.52 against ₹ 1.40). Plan A also has a lower break-even EBIT, so its financial risk is lower. Plan B (debt) becomes better only if EBIT is expected to stay above ₹ 40 lakh, because the cheaper after-tax cost of debt (12% × 0.7 = 8.4%) then outweighs the dilution from issuing new shares. On the given forecast, **Plan A** is recommended.

7. (a)

Particulars	Present (₹)	Sales +20% (₹)	Working
Sales (25,000 / 30,000 units × ₹ 40)	10,00,000	12,00,000	
Less: Variable cost (× ₹ 24)	6,00,000	7,20,000	
Contribution	**4,00,000**	**4,80,000**	**₹ 16 per unit**
Less: Fixed operating cost	1,60,000	1,60,000	
EBIT	**2,40,000**	**3,20,000**	
Less: Interest (10% × 4,00,000)	40,000	40,000	
PBT	2,00,000	2,80,000	
Less: Tax @ 30%	60,000	84,000	
PAT	**1,40,000**	**1,96,000**	
EPS (÷ 1,00,000 shares)	**₹ 1.40**	**₹ 1.96**	

(b) **Leverages**

DOL = Contribution / EBIT = 4,00,000 / 2,40,000 = **1.67**

DFL = EBIT / PBT = 2,40,000 / 2,00,000 = **1.20**

DCL = DOL × DFL = 1.67 × 1.20 = **2.00** (also = Contribution / PBT = 4,00,000/ 2,00,000)

(c) **Effect of a 20% rise in sales:** From the table, new EPS = **₹ 1.96**, a rise of 40% over ₹ 1.40. Verification using DCL: % change in EPS = DCL × % change in sales = 2.00 × 20% = 40%. New EPS = 1.40 × 1.40 = ₹ 1.96. Also, EBIT rises by DOL × 20% = 33.3% (from ₹ 2,40,000 to ₹ 3,20,000).

(d) **Break-even point** = Fixed cost / Contribution per unit = 1,60,000 / 16 = **10,000 units** (₹ 4,00,000 in sales). Margin of safety = (25,000 – 10,000) / 25,000 × 100 = **60%**.

8. (a) **Walter's model:** P = [D + (r/Ke)(E – D)] / Ke

Payout	DPS (₹)	Working	Price (₹)
0%	0	[0 + (0.15/0.12)(10 – 0)] / 0.12 = 12.5 / 0.12	104.17
40%	4	[4 + (0.15/0.12)(10 – 4)] / 0.12 = 11.5 / 0.12	95.83
100%	10	[10 + (0.15/0.12)(0)] / 0.12 = 10 / 0.12	83.33

(b) Since r (15%) > Ke (12%), the firm is a **growth firm**. Retained earnings can be reinvested at a return higher than shareholders' required return, so every rupee retained adds more than a rupee of value. The price is highest at **0% payout** (₹ 104.17) and falls as the payout rises. The optimum payout ratio is nil.

(c) **Gordon's model:** $P0 = E_1 (1 – b) / (Ke – b \times r)$, where g = b × r

Retention (b)	g = b·r	Working	Price (₹)
0%	0%	10 × 1.0 / (0.12 – 0)	83.33
40%	6%	10 × 0.6 / (0.12 – 0.06)	100.00
60%	9%	10 × 0.4 / (0.12 – 0.09)	133.33

The price rises as retention rises, which is consistent with Walter's conclusion that a firm with r > Ke should retain its earnings. Note that Gordon's price rises sharply as g approaches Ke, so the model is valid only when Ke > br.

(d) If r = 10% (< Ke of 12%), the firm is a **declining firm**. Prices under Walter's model would be: 0% payout = ₹ 69.44; 40% payout = ₹ 75.00; 100% payout = ₹ 83.33. The price is now highest at 100% payout, so the **optimum payout ratio is 100%**. Retained funds earn less than shareholders could earn elsewhere, so the firm should distribute all earnings

9. (a) Net initial outlay

Particulars	₹ lakh
Cost of new machine	25.00
Less: Sale proceeds of old machine	(3.00)
Less: Tax saving on loss on sale [(6 – 3) × 30%]	(0.90)
Net initial outlay	**21.10**

(b) Incremental annual cash flow (years 1–5)

Particulars	₹ lakh
Savings in operating cost	8.00
Less: Tax @ 30%	(2.40)
After-tax saving	5.60
Add: Tax shield on incremental depreciation [(4.0 – 1.2) × 30%]	0.84
Incremental annual cash flow	**6.44**

Particulars	Cash flow	PVIF @12%	PV (₹ lakh)
Annual cash flow, years 1–5	6.44	3.605	23.22
Scrap value of new machine, year 5 (book value = scrap, so no tax)	5.00	0.567	2.83
Total PV of inflows			**26.05**
Less: Net initial outlay			21.10
NPV of replacement			**4.95**

(c) **Break-even saving:** Required annual cash flow = (21.10 – 2.835) / 3.605 = ₹ 5.07 lakh. Less tax shield on depreciation 0.84 gives required after-tax saving of ₹ 4.23 lakh. Pre-tax saving = 4.23 / 0.70 = **₹ 6.04 lakh**. Margin of safety = (8.00 – 6.04) / 8.00 = **24.5%**.

(d) **Advice:** NPV is positive (₹ 4.95 lakh), so replacement is financially justified. Annual savings may fall by about 25% before the NPV turns zero, which gives a reasonable cushion against forecasting error. Management should accept the replacement, subject to the reliability of the savings estimate

10. Statement Showing Cost and Sales for the First Year

Annual Production Capacity	60,000 units
Production	40,000 units
Sales	35,000 units

Particulars	**₹**
Sales Revenue (₹ 80 × 35,000)	28,00,000
Cost of Production:	
Materials @ ₹ 20 per unit	8,00,000
Direct Labour @ ₹ 15 per unit	6,00,000
Manufacturing Overheads	
Variable @ ₹ 15 per unit	6,00,000
Fixed (based on production capacity 60,000 units × ₹ 10)	6,00,000
Cost of Production	26,00,000
Less: Closing Stock (40,000 – 35,000 = 5,000 units)	
$\left(₹ \frac{26,00,000}{40,000} \times 5,000 \text{ units}\right)$	3,25,000
Cost of Goods Sold	22,75,000

Add: Selling & Distribution Overheads	
Variable @ ₹ 3 × 35,000 units = 1,05,000	
Fixed (Re. 1 × 60,000 units) = 60,000	1,65,000
Cost of Sales	24,40,000
Profit	3,60,000

Statement Showing Working Capital Requirement

			₹
A.	**Current Assets**		
	Stock of Raw Materials	(₹ 8,00,000 × 3/12)	2,00,000
	Stock of Finished Goods		3,25,000
	Debtors at Cost	(₹ 24,40,000 × 3/24)	3,05,000
	Cash and Bank		60,000
	Total (A)		8,90,000
B.	**Current Liabilities**		
	Creditors for Materials	(₹ 10,00,000 × 4/12)	3,33,333
	Creditors for Expenses	(₹ 13,65,000 × 1/24)	56,875
	Outstanding Wages	(₹ 6,00,000 × 1/12)	50,000
	Total (B)		4,40,208
	Working Capital Requirement before Contingencies **(A – B)**		4,49,792
	Add: Provision for Contingencies (₹ 4,49,792 × 1/9)		49,977
	Estimated Working Capital Requirement		4,99,769

Workings Notes:

Purchase of Raw Material during the first year	₹
Raw Material consumed during the year	8,00,000
Add: Closing Stock of Raw Materials (3 months consumption)	2,00,000
	10,00,000

Less: Opening Stock of Raw Material	Nil
Purchases during the year	10,00,000

11. (a) Incremental analysis (₹ lakh)

Particulars	Present policy	Proposed policy	Incremental
Credit sales	2,400.00	3,000.00	600.00
Contribution (30% of sales)	720.00	900.00	180.00
Average receivables (Sales × days / 365)	197.26	493.15	295.89
Investment in receivables (70% of above)	138.08	345.21	207.12
Less: Carrying cost @ 15%	20.71	51.78	31.07
Less: Bad debts	24.00	75.00	51.00
Net benefit	**675.29**	**773.22**	**97.93**

Incremental contribution of ₹ 180.00 lakh exceeds the incremental carrying cost (₹ 31.07 lakh) and incremental bad debts (₹ 51.00 lakh) by ₹ 97.93 lakh. The proposal is financially beneficial and should be **adopted**, subject to the sales forecast being realistic and the collection period not stretching beyond 60 days.

(b) Cost of forgoing the cash discount

Cost = [Discount % / (100 – Discount %)] × [365 / (Credit period – Discount period)] = [2 / 98] × [365 / (45 – 10)] = 0.0204 × 10.43 = **21.28%**

Since the cost of forgoing the discount (21.28%) is higher than the bank borrowing rate (14%), the buyer should **take the discount** and, if necessary, borrow from the bank to pay on the tenth day.

(c) Baumol model

Optimum conversion size C = √(2 × U × P / S) = √(2 × 12,00,000 × 3,000 / 0.08) = √(90,00,00,00,000) = **₹ 3,00,000**

Number of conversions = 12,00,000 / 3,00,000 = **4 per year**

Total cost = Conversion cost + Holding cost = (4 × ₹ 3,000) + (3,00,000 / 2 × 8%) = 12,000 + 12,000 = **₹ 24,000**

12. (a) **Inter-relationship between Investment, Financing and Dividend Decisions:** The finance functions are divided into three major decisions, viz., investment, financing and dividend decisions. It is correct to say that these decisions are inter-related because the underlying objective of these three decisions is the same, i.e. maximisation of shareholders' wealth. Since investment, financing and dividend decisions are all interrelated, one has to consider the joint impact of these decisions on the market price of the company's shares and these decisions should also be solved jointly. The decision to invest in a new project needs the finance for the investment. The financing decision, in turn, is influenced by and influences dividend decision because retained earnings used in internal financing deprive shareholders of their dividends. An efficient financial management can ensure optimal joint decisions. This is possible by evaluating each decision in relation to its effect on the shareholders' wealth.

The above three decisions are briefly examined below in the light of their inter-relationship and to see how they can help in maximising the shareholders' wealth i.e. market price of the company's shares.

Investment decision: The investment of long term funds is made after a careful assessment of the various projects through capital budgeting and uncertainty analysis. However, only that investment proposal is to be accepted which is expected to yield at least so much return as is adequate to meet its cost of financing. This have an influence on the profitability of the company and ultimately on its wealth.

Financing decision: Funds can be raised from various sources. Each source of funds involves different issues. The finance manager has to maintain a proper balance between long-term and short-term funds. With the total volume of long-term funds, he has to ensure a proper mix of loan funds and owner's funds. The

optimum financing mix will increase return to equity shareholders and thus maximise their wealth.

Dividend decision: The finance manager is also concerned with the decision to pay or declare dividend. He assists the top management in deciding as to what portion of the profit should be paid to the shareholders by way of dividends and what portion should be retained in the business. An optimal dividend pay-out ratio maximises shareholders' wealth.

The above discussion makes it clear that investment, financing and dividend decisions are interrelated and are to be taken jointly keeping in view their joint effect on the shareholders' wealth

(b) **Debt Securitisation:** It is a method of recycling of funds. It is especially beneficial to financial intermediaries to support the lending volumes. Assets generating steady cash flows are packaged together and against this asset pool, market securities can be issued, e.g. housing finance, auto loans, and credit card receivables.

Process of Debt Securitisation

(i) *The origination function* – A borrower seeks a loan from a finance company, bank, HDFC. The credit worthiness of borrower is evaluated and contract is entered into with repayment schedule structured over the life of the loan.

(ii) *The pooling function* – Similar loans on receivables are clubbed together to create an underlying pool of assets. The pool is transferred in favour of Special purpose Vehicle (SPV), which acts as a trustee for investors.

(iii) *The securitisation function* – SPV will structure and issue securities on the basis of asset pool. The securities carry a coupon and expected maturity which can be asset-based/mortgage based. These are generally sold to investors through merchant bankers. Investors are – pension funds, mutual funds, insurance funds.

The process of securitization is generally without recourse i.e. investors bear the credit risk and issuer is under an obligation to pay to investors only if the cash flows are received by him from the collateral. The benefits to the originator are that assets are shifted off the balance sheet, thus giving the originator recourse to off-balance sheet funding.

(c) **Concept of Discounted Payback Period:** Payback period is time taken to recover the original investment from project cash flows. It is also termed as break even period. The focus of the analysis is on liquidity aspect and it suffers from the limitation of ignoring time value of money and profitability. Discounted payback period considers present value of cash flows, discounted at company's cost of capital to estimate breakeven period i.e. it is that period in which future discounted cash flows equal the initial outflow. The shorter the period, better it is. It also ignores post discounted payback period cash flows.

6B: STRATEGIC MANAGEMENT



QUESTIONS

Multiple Choice Questions

1. Founded in 2017 in Bengaluru, Garud AI began as a modest startup with an innovative idea: creating AI-driven solutions to help small businesses automate routine processes like customer support, supply chain optimization, and marketing analytics. Within just six years, Garud AI skyrocketed to prominence, achieving unicorn status in 2023 with a valuation of $1.5 billion. The company's rise was fueled by a combination of strategic initiatives.

   Early on, Garud AI realised that its success was playing in the right market and so it invested heavily in digital campaigns, influencer partnerships and content marketing tailored to its target audience of small and medium enterprises (SMEs). By offering free trials and emphasizing measurable ROI in their ads, Garud AI acquired over 50,000 clients globally by the end of 2022. Its referral program alone contributed 30% of its new customer base annually.

   In later half of 2023, Garud AI expanded its capabilities by acquiring two smaller AI startups specializing in voice recognition and predictive analytics. The acquisition of VoiceVerse, a voice AI brand, brought proprietary speech recognition technology into Garud's portfolio, while DataPredict's analytics algorithms enhanced its marketing automation tools. These strategic acquisitions not only consolidated Garud's market position but also added $120 million in annual revenue.

   As part of its globalization strategy, Garud entered developed markets like Dubai and Singapore in 2024. The choice was strategic: both cities offer strong digital infrastructure, favorable business environments and access to high value enterprise clients. Garud's entry into these markets

resulted in a 25% revenue increase within a year, driven by contracts with leading real estate and retail firms.

In a game changing unexpected move, Garud merged with Technova Systems, an established Indian IT services company, in mid-2025. This merger provided Garud with access to Technova's expansive client network across South Asia and Europe, while Technova benefited from Garud's cutting-edge AI expertise. The combined entity is projected to achieve $2.5 billion in revenue by end of 2026.

Garud's leadership has been instrumental in its journey. Initially, CEO Arjun Mehta's style focused on clear targets and performance incentives to drive rapid growth. However, as the company scaled, Mehta shifted its emphasis to innovation, employee empowerment and spreading a shared vision. This shift built a culture of creativity and collaboration, which today has become critical during the post-merger expansion.

Despite its success, Garud maintains its niche focus on high value customers, such as Fortune 500 companies and fast-growing SMEs willing to pay a premium for personalized AI solutions and has thereby ensured consistent profitability while maintaining a strong brand reputation.

As Garud AI now prepares for an IPO in 2027, the company faces key challenges such as retaining its innovative edge, managing cultural integration post-merger and sustaining its rapid growth trajectory. With its bold strategies and visionary leadership, Garud is well positioned to shape the future of AI-driven business solutions, but the world is catching up fast too.

Based on the above Case Scenario, answer the Multiple Choice Questions.

(i) One of the most critical tasks during a merger is syncing the culture of two entities. Garud could uphold the culture of creativity and collaboration even during such times. What underlying factor supported such a smooth transition?

(a) Expenditure on Innovation

(b) Transformational Leadership style of the Leadership

(c) Shared vision of the company

(d) Unbuilt value system of the company

(ii) The scenario talks about the fact that both cities offered strong digital infrastructure, favorable business environments and access to high value enterprise clients. In light of this statement, read carefully and answer, which growth strategy did Garud pursue with such an expansion?

(a) Market Development

(b) Market Penetration

(c) Product Development

(d) Diversification

(iii) Garud AI started by serving small and medium enterprises (SMEs) but later moved towards high value niche customers like Fortune 500 firms willing to pay a premium. According to Porter's Generic Strategies, how has Garud AI's strategic positioning evolved?

(a) From Cost leader to differentiation

(b) From differentiation to focused differentiation

(c) From focused cost leader to focused differentiation

(d) From differentiation to focused differentiation

(iv) Garud AI acquired VoiceVerse and DataPredict to integrate their technological capabilities into its existing AI solutions and extend their application to new markets. According to C.K. Prahalad and Gary Hamel, which area of core competencies does this illustrate?

(a) Competitor differentiation

(b) Application to other markets

(c) Building customer value

(d) Non-imitability from competitors

(v) Following its acquisitions of VoiceVerse and DataPredict and its merger with Technova Systems, Garud AI has expanded its business across different products and services. To ensure clear accountability and independent management of its AI solutions and legacy IT services, the company wants to organize its activities into separate business units, each with its own functional specialists and responsibility for performance. Which organizational structure would be most appropriate?

(a) Matrix Structure

(b) Network Structure

(c) Divisional Structure

(d) Functional Structure

2. A multinational pharmaceutical company aspires to become the world's most trusted innovator in affordable healthcare by 2045. It identifies broad future outcomes, such as strengthening its global presence and enhancing research capabilities, before translating them into specific, measurable targets. The broad future outcomes are best described as:

(a) Vision

(b) Goals

(c) Objectives

(d) Functional Strategies

3. A premium electric car manufacturer continuously reduces manufacturing cost because engineers improve battery assembly techniques after every production cycle. The reduction in cost is primarily due to accumulated knowledge rather than increased production volume. This phenomenon is known as:

(a) Economies of Scale

(b) Experience Curve

(c) Learning Organisation

(d) Cost Leadership

4. An Indian electric vehicle manufacturer notices that international automobile companies are rapidly entering the domestic market, while government incentives for EV manufacturing continue to increase. The management decides to accelerate capacity expansion before competition intensifies. Which strategic driver is primarily influencing this decision?

   (a) Customers

   (b) Products

   (c) Industry and Markets

   (d) Channels

5. A consumer electronics company has decided to permanently discontinue its MP3 player business because of continuously declining demand and increasing operating losses. Resources released from this business are invested in wearable technology. This decision primarily represents:

   (a) Stability Strategy

   (b) Strategic Exit

   (c) Expansion Strategy

   (d) Product Development

6. A logistics company regularly monitors technological developments, competitor actions, customer expectations and government policies even when no specific threat has been identified. Which type of strategic control is illustrated?

   (a) Premise Control

   (b) Strategic Surveillance

   (c) Special Alert Control

   (d) Implementation Control

Descriptive Questions

Chapter 1-Introduction to Strategic Management

7. Apex Dynamics, a mid-sized paper manufacturing firm, hired a prestigious global strategy consultancy to engineer a turnaround and growth roadmap. The resulting 150-page strategic blueprint prescribed an aggressive international market expansion, three horizontal acquisitions, and a pivot toward high-margin packaging material production. Armed with this world-class strategy, the CEO secured board approval and significant venture funding. However, over the next 18 months, despite the "flawless strategy on paper," Apex missed all revenue targets, suffered a 40% key-talent attrition rate post-acquisition, and faced severe cashflow crunches due to unmonitored operational cost overruns. Middle management blamed the strategy for being "unrealistic," while executive leadership blamed operational teams for "poor execution." Diagnose the root cause of Apex Dynamics' failure while sharing what other shortcomings strategic management possess?

8. A ketchup manufacturing company decides to introduce a healthier version of its ketchup with reduced sugar and fewer preservatives. The objective is to attract health-conscious consumers and reassure parents about the suitability of the product for their children. The company also observes that competitors have started introducing similar products and that consumer preferences are changing towards healthier food options.

   Identify the proactive and reactive elements of the company's strategy. Explain how the company's strategy reflects a combination of proactive planning and reactive adaptation.

Chapter 2-Strategic Analysis: External Environment

9. BTC (Bus Trading Co.) expanded its inventory from 500 to 2,000 buses within one year to achieve a 40% increase in orders. However, its back-office capacity failed to keep pace with this expansion. Registration processing time increased from 5 days to 30 days, inspection delays rose by 50%, and daily holding costs per bus increased from ₹1,500 to ₹2,200. Consequently, the company's net operating margin declined significantly from 18% to 7%. This case highlights how unforeseen

events and inadequate risk assessment can adversely affect even a well-formulated strategy.

Identify the type of strategic risk faced by BTC. Also, explain the different types of strategic risks that a business may encounter.

10. "International development is expensive and challenging". In the context of the statement, explain the internationalization of business and the steps involved in such strategic planning.

Chapter 3-Strategic Analysis: Internal Environment

11. VoltMotors India is planning to launch a new mid-segment commercial electric van for urban logistics. The target market comprises price-sensitive fleet buyers who value affordability and a low total cost of ownership. The company aims to capture a 20% market share within 18 months. However, owing to high battery manufacturing costs, the company faces considerable cost pressures. The Board of Directors has mandated that the pricing strategy must ensure a minimum net profit margin of 15% over unit costs while remaining attractive to customers.

    In the context of the given case, explain the three objectives that should be kept in mind while designing a pricing strategy for a new product. Also, identify the objective that is of particular concern to the Board of VoltMotors India.

12. Managing stakeholders is critical to the success of a project". Explain how Mendelow's Matrix helps in managing stakeholders and categorizing the stakeholders into groups.

Chapter 4-Strategic Choices

13. Café Namma Spot, a popular 200-seat multi-cuisine restaurant located in Indiranagar, Bengaluru, has experienced a 40% decline in customer footfall over the past year. The restaurant is facing several operational challenges, including broken air conditioning units, faded seating, frequent plumbing breakdowns and poor kitchen ventilation. These issues have resulted in negative online reviews, loss of corporate bookings and hygiene concerns raised by food delivery aggregators. Despite the availability of a large customer base in the surrounding commercial area, management has failed to prioritise the maintenance

of its physical facilities, further aggravating the decline in business performance.

In the context of Strategic Exits, identify the appropriate strategy indicated by the above situation. Also, explain the relevant indicators that suggest the need for adopting this strategy.

14. Explain the 'product market growth matrix' as propagated by Igor Ansoff as a device for identifying growth opportunities for the future.

Chapter 5-Strategy Implementation and Evaluation

15. Dhadhani, a leading supermarket chain in Bhopal operating 25 outlets, introduced an AI-driven inventory management system to improve operational efficiency. However, store managers and warehouse supervisors resisted the change due to fears of job losses and continued using manual registers instead of the new software. As a result, inventory miscounts increased, order fulfilment was delayed, and conflicts arose between corporate executives and store employees. The owners viewed this resistance as deliberate disobedience rather than a natural reaction to organisational change.

In the given situation, explain the measures that Dhadhani should adopt to manage change effectively during digital transformation.

16. "A manager as a strategic leader has to play many leadership roles", while explaining the statement in brief, delineate the leadership roles which a manager has to play in pushing for a good strategy execution.



SUGGESTED ANSWERS/HINTS

Answer to Case Scenario and MCQ

Q. No.	Answer	
1.	(i)	(b)
	(ii)	(a)
	(iii)	(c)
	(iv)	(b)

	(v)	(c)
2.	(b)	
3.	(b)	
4.	(c)	
5.	(b)	
6.	(b)	

7. Apex Dynamics failed primarily because it relied on an ambitious strategic plan without adequately addressing the practical challenges of implementation. The company underestimated the complexity and uncertainty of the business environment, invested considerable resources in strategic planning and acquisitions, and failed to anticipate competitive responses and operational challenges. The resulting talent attrition, cost overruns and cash-flow crisis demonstrate that strategic management cannot guarantee success in every situation.

Other Limitations of Strategic Management:

1. **Highly Complex and Turbulent Environment:** Business environments are dynamic and difficult to predict. Changes in market conditions, customer preferences, technology or government policies may render strategies ineffective. Apex Dynamics may have underestimated the uncertainties associated with international expansion and the packaging materials market.
2. **Time-Consuming Process:** Strategic management requires considerable time for environmental analysis, strategy formulation, communication and implementation. Excessive focus on planning may divert management's attention from routine operations and timely execution.
3. **Costly Process:** Strategic management involves expenditure on consultants, research, analysis, acquisitions and implementation. For Apex Dynamics, the cost of acquisitions and expansion, coupled with unmonitored operational expenses, contributed to financial difficulties.

4. **Difficulty in Predicting Competitive Responses:** Competitors may respond to strategic initiatives in unexpected ways, making it difficult to estimate the likely outcomes of a strategy. Apex Dynamics may have failed to anticipate the competitive challenges and market reactions associated with its international expansion and shift towards high-margin packaging materials.

8. The company's strategy is a combination of both proactive and reactive elements.

Proactive strategy: The company takes the initiative to develop and introduce healthier ketchup to attract new customers, differentiate its product and strengthen its market position. This is a planned action undertaken to improve its competitive position and financial performance.

Reactive strategy: The company adapts its product offerings in response to changing consumer preferences towards healthier food and the introduction of similar products by competitors. These developments in the external business environment require the company to adjust its approach to remain competitive.

The given case demonstrates that a company's actual strategy is partly proactive and partly reactive. While proactive actions reflect deliberate planning and managerial initiatives, reactive actions involve adapting to changing market conditions and competitive developments. By combining both approaches, the company can respond effectively to environmental changes while pursuing its long-term objectives.

9. BTC is primarily experiencing internal strategic risk in the short term, as its organisational capacity is unable to cope with the demands of its expansion strategy.

The company increased its inventory from 500 to 2,000 buses to meet a 40% increase in orders. However, its back-office capacity failed to keep pace with the expansion, resulting in increased registration time, inspection delays and holding costs. Consequently, its net operating margin declined from 18% to 7%.

This illustrates that inadequate assessment of organisational capabilities and constraints can lead to strategic failure, even when the strategy is well formulated.

Strategic risks can be broadly classified as follows:

		Time	
		Short Time	**Long Time**
Strategic Risks	External	Errors in interpreting the environment cause strategic failure	Changes in the environment lead to obsolescence of strategy.
	Internal	Organizational capacity is unable to cope up with strategic demands.	Inconsistencies with the strategy are developed on account of changes in internal capacities and preferences

Strategic analysis helps identify potential risks, opportunities, threats, strengths and weaknesses, enabling an organisation to select, implement and review its strategies effectively.

10. Internationalization has become a pivotal trend for businesses aiming to enhance profitability and access cheaper resources. **It allows companies to explore new markets, achieve economies of scale, and prolong product lifecycles.** However, the process of internationalization is complex due to additional variables and linkages that differ from domestic operations.

To navigate this complexity, businesses should adopt a structured approach to international strategic planning. The steps involved include:

1. **Evaluate Global Opportunities and Threats:** Businesses must assess potential global markets, identify opportunities and threats while align them with their internal capabilities.

2. **Describe the Scope of Operations:** Clearly defining the extent of the firm's international commercial activities is crucial for focused strategy development.

3. **Create Global Business Objectives:** Establishing clear objectives helps guide the organization's international efforts and aligns with its overall mission.

4. **Develop Distinct Corporate Strategies:** Formulating specific strategies tailored for global operations ensures that the organization can effectively compete in diverse markets.

These steps facilitate the identification of market opportunities and the formulation of effective global strategies, enabling businesses to thrive in the international arena despite the inherent challenges and costs associated with such expansion.

11. For a new product, at least three objectives must be kept in mind while designing pricing strategies for entering a market:

1. **Customer-Centric Approach:** The product and its pricing should be designed by considering the needs, preferences and affordability of the target customers. The price should be attractive to customers and offer value for money.

2. **Sufficient Returns through a Reasonable Margin over Cost:** The pricing strategy should ensure that the organisation earns sufficient returns by maintaining a reasonable profit margin over the cost of the product. This is essential for the financial sustainability of the organisation.

3. **Increasing Market Share:** The pricing strategy should help the organisation attract more customers, increase sales and capture a larger share of the target market.

The Board of VoltMotors India is particularly concerned with the second objective, i.e., producing sufficient returns through a reasonable margin over cost, as it has mandated a minimum net profit margin of 15% over unit costs. At the same time, the company should adopt a customer-centric approach to attract price-sensitive fleet buyers and pursue its target of capturing a 20% market share within 18 months.

12. Mendelow's matrix is a simple framework to help manage key stakeholders.

Managing Stakeholders: Mendelow's Matrix is an essential tool for managing stakeholders effectively in project management, as it involves managing the competing interests of various stakeholders. It categorizes stakeholders based on their power and interest levels. This framework helps project managers to identify which stakeholders are incredibly important and prioritize their engagement strategies to ensure project success.

Categorization of Stakeholders: The matrix divides stakeholders into four groups:

- **Key Players (High Power, High Interest)**: These stakeholders require close management and regular communication. Engaging them fully ensures their support and input, which is crucial for project success. For instance, CEOs and shareholders fall into this category.
- **Keep Satisfied (High Power, Low Interest)**: While these stakeholders have significant influence, they may not be as invested in the project's success. It is essential to keep them satisfied with sufficient information to prevent potential conflicts.
- **Keep Informed (Low Power, High Interest)**: Stakeholders in this group are interested in the project but lack the power to influence its outcome. Regular updates and communication can foster goodwill and may provide valuable feedback.
- **Low Priority (Low Power, Low Interest)**: These stakeholders require minimal attention. Monitoring their interest and power levels periodically is sufficient, as they do not significantly impact the project.

In summary, Mendelow's Matrix provides a clear framework for categorizing stakeholders based on their power and interest, facilitating effective stakeholder management and enhancing the likelihood of project success.

13. The situation of Café Namma Spot indicates the need for a Turnaround Strategy, which is a form of internal retrenchment that focuses on improving internal efficiency and reversing the process of decline.

The following indicators suggest the need for adopting a turnaround strategy:

1. **Deterioration in Physical Facilities:** Broken air conditioning units, faded seating, frequent plumbing breakdowns and poor kitchen ventilation indicate deterioration in the restaurant's physical facilities.
2. **Declining Market Share:** The 40% decline in customer footfall indicates deteriorating business performance and a possible loss of customers to competitors.
3. **Uncompetitive Products or Services:** Poor maintenance, hygiene concerns and negative online reviews have adversely affected service quality and the restaurant's ability to attract customers.
4. **Mismanagement:** Management's failure to prioritise property maintenance has aggravated operational problems and contributed to the decline in business.
5. **Poor Business Performance:** The loss of corporate bookings and concerns raised by food delivery aggregators indicate declining customer confidence and the need for corrective measures.

Café Namma Spot should adopt a turnaround strategy by identifying the root causes of its problems, repairing and upgrading its physical facilities, improving hygiene and service quality, reducing operational inefficiencies and rebuilding customer confidence to restore business performance and profitability.

14. Ansoff's Product Market Growth Matrix, developed by Igor Ansoff, is a strategic tool that helps businesses identify growth opportunities by analyzing the interplay between products and markets.

It offers four distinct strategies based on whether the products and markets are existing or new. These strategies are:

1. **Market Penetration**: Focuses on selling existing products in existing markets. This involves increasing market share by enhancing sales through advertising, promotions, competitive pricing, or encouraging higher usage among current customers.
2. **Market Development**: Entails selling existing products in new markets. This could involve exploring new geographical regions, utilizing alternative distribution channels, or creating new market segments.
3. **Product Development**: Involves introducing new or modified products into existing markets. This strategy often requires innovation and developing products that meet current market needs.
4. **Diversification**: Refers to marketing new products in new markets. It is a high-risk strategy as the business ventures into unfamiliar products and markets.

As market dynamics evolve, companies may transition between these strategies to adapt and sustain growth. The matrix provides a structured framework for businesses to align their growth strategies with their capabilities and market conditions.

15. Digital transformation can be challenging and overwhelming for an organisation. To ensure an effective digital transition, change management is essential. The following measures should be adopted by Dhadhani to manage change during digital transformation:

1. **Specify the Digital Transformation's Aims and Objectives:** The organisation should clearly define the intended outcomes and objectives of implementing the AI-driven inventory management system so that all employees understand the goals and work towards achieving them.
2. **Always, always, always Communicate:** Management should routinely and honestly communicate the objectives of digital transformation and explain how the changes will affect employees and other stakeholders.
3. **Be Ready for Resistance:** Management should anticipate resistance from store managers and warehouse supervisors and

have an appropriate strategy in place to address their concerns regarding potential job losses.

4. **Implement Changes Gradually:** Changes should be implemented gradually rather than all at once, giving employees sufficient time to adjust to the new system and avoid being overwhelmed by the changes.

5. **Offer Assistance and Training:** Employees should be provided with guidance and training in the new procedures and software applications to help them adapt to the AI-driven inventory management system.

Effective planning and change management are essential for the successful implementation of digital transformation. By planning for and managing the changes, Dhadhani can facilitate employee acceptance and improve the effectiveness of its new digital system.

16. Strategic leadership refers to the manager's ability to anticipate, envision, maintain flexibility and empower others to create strategic change as necessitated by external conditions. A manager as a strategic leader is responsible for setting the firm's direction, formulating and implementing strategies and ensuring that the organization moves towards achieving its strategic goals. To achieve this, the manager must play multiple leadership roles such as visionary, strategist, administrator, culture builder and motivator.

Managers have five leadership roles to play in pushing for good strategy execution:

1. **Staying on top of the execution process:** Monitoring progress, resolving emerging issues and understanding obstacles in the way of effective execution.

2. **Promoting a culture of esprit de corps:** Nurturing unity, teamwork and high morale to mobilize and energize employees for effective strategy implementation.

3. **Keeping the organization responsive and innovative:** Ensuring the firm remains adaptive to changes, alert to new opportunities and ahead of rivals in developing competencies.

4. **Exercising ethical leadership:** Insisting that the company behaves ethically and acts as a model corporate citizen.

5. **Pushing corrective actions:** Taking necessary corrective measures to overcome execution problems and improve overall strategic performance.

These roles help managers drive strategy execution effectively while maintaining integrity, adaptability and performance.