

2026

COMMERCE

Paper : CC-402

(Strategic Cost and Management Accounting)

Full Marks : 40

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

Module - I

Answer **any two** questions.

1. Venus Manufacturing Ltd. produces two primary components used in precision engineering : Product Alpha (High Volume) and Product Beta (Low Volume). The company has historically absorbed all manufacturing overheads using a traditional costing system based on Direct Labour Hours.

Due to increasing margin pressures and unexpected competition in its high-volume lines, the management is considering adopting an Activity-Based Costing (ABC) System.

The operational parameters for a standard production period are detailed below :

Operational Metrics	Product Alpha	Product Beta
Production/Sales Volume	10,000 units	2,000 units
Direct Material Cost per unit	₹ 150	₹ 240
Direct Labour Requirement per unit	2 hours @ ₹ 100/hr	5 hours @ ₹ 100/hr
Machine Hours per unit	3 hours	4 hours
Batch Size	1,000 units per batch	100 units per batch
Purchase Requisitions per batch	2 requisitions	6 requisitions
Number of Inspections per batch	3 inspections	5 inspections

Overhead Structure and Cost Pool Analysis

The total manufacturing overheads recorded for the period amount to ₹ 34,00,000. A technical study of the factory operations breaks down these overheads into four distinct pools :

- Machine Operation and Maintenance : 30% of total overheads
- Production Set-up Costs : 25% of total overheads
- Store Receiving and Procurement : 20% of total overheads
- Quality Inspection Costs : 25% of total overheads.

Please Turn Over

(5003)

The identified cost drivers for these pools are Machine Hours (for Machine Operations), Number of Batches Production Runs (for Set-up and Inspection) and Total Purchase Requisitions Raised (for Store Receiving).

Required :

- Calculate the unit manufacturing cost and total profitability profile for both products under the current traditional system.
- Compute the unit manufacturing cost using ABC principles.
- Analyze the resulting cost distortions (under-costing/over-costing) and discuss how cross-subsidization impacts pricing choices.

3+5+2

2. Division D1 is a profit centre, which produces four products — A, B, C and D. Each product is sold in the external market also. Data for the period are as follows :

Particulars	A	B	C	D
Market price per unit	₹ 160	₹ 145	₹ 135	₹ 140
Variable cost of production per unit	₹ 127	₹ 100	₹ 85	₹ 90
Labour hours required per unit	3	4	2	3

Product D can be transferred to Division D2, but the maximum quantity that might be required for transfer is 2,500 units of D.

The maximum sales in the external market are :

Product A : 2,800 units

Product B : 2,500 units

Product C : 2,300 units

Product D : 1,600 units

Division D2 can purchase the same product at a slightly cheaper price of ₹ 125 per unit instead of receiving transfers of product D from Division D1.

Calculate minimum transfer price for each unit for 2,500 units of D, if the total labour hours available in division D1 are :

- 19,500 hours
- 28,000 hours.

5+5

3. (a) Residual Income and Economic Value Added are conceptually same but there are many differences. Do you agree? Justify your answer.
- (b) The following information are available in respect of X Ltd. Calculate Return on Investment, Residual Income and Economic Value Added for the company.

Sales	₹ 40,80,000	
Profit after Tax	₹ 6,30,000	
12% Debenture	₹ 10,00,000	
Current Liabilities	₹ 2,00,000	
Shareholders' Equity	₹ 15,00,000	
Current Assets	₹ 4,00,000	
Corporate Income Tax Rate	30%	
Risk-free Rate of Return	5%	
Market Rate of Return	15%	
Beta Value of X Ltd.'s Stock	0.80	3+7

4. Write short notes on :

- (a) Just-in-Time Manufacturing
- (b) Balanced Scorecard
- (c) Quality Costing.

3+4+3

Module - II

Answer *any two* questions.

5. (a) A company requires 25,000 units of a component per year. The cost of manufacturing the component internally is :

Cost Elements	Cost per Unit (₹)
Direct Materials	45
Direct Labour	30
Variable Overheads	20
Fixed Overheads	25
Total Cost	120

Please Turn Over

(5003)

Two suppliers offer the component :

Supplier	Price per Unit
Supplier A	₹ 110
Supplier B	₹ 105

Additional information :

- (i) 50% of fixed overheads are unavoidable.
- (ii) If production stops, the factory space can be rented for ₹ 4,00,000 per year.

Required :

Determine whether the company should Make or Buy, and if buying, which supplier should be chosen.

- (b) A company manufactures two products P and Q. Details are as under :

Particulars	P	Q
Selling Price (₹)	1,200	1,600
Direct Material (₹)	400	500
Direct Labour(₹)	250	350
Variable Overhead (₹)	200	250
Material required (kg)	8	10
Machine hours	5	6

Available resources :

Material : 80,000 kg

Machine hours : 50,000 hours

Maximum demand :

- P : 6,000 units
- Q : 5,000 units

Export order for 3,000 units of P at ₹ 950 each.

Required :

Determine whether the company should reject/ accept the export order.

5+5

6. (a) Explain the different steps involved in establishing an effective cost control system in an organization.
- (b) Describe the role of value engineering in cost reduction.

5+5

7. PQR Ltd. manufactures two products using two types of materials and one grade of labour. Shown below is an extract from the company's working papers for the next period's budget :

Particulars	Product - A	Product - B
Budgeted sales (units)	2,400	3,600
Budgeted material consumption per unit (kg.)		
Material - X	5	3
Material - Y	4	6
Standard labour hours allowed per unit of product	3	5

Material - X and Material - Y : Cost ₹ 4 and ₹ 6 per kg and labours are paid ₹ 25 per hour.

Overtime premium is 50% and is payable, if a worker works for more than 40 hours a week. There are 90 direct workers.

The target productivity ratio (or efficiency ratio) for the productive hours worked by the direct workers in actually manufacturing the products is 80%. In addition, the non-productive down time is budgeted at 20% of the productive hours worked.

There are four 5-day weeks in the budget period and it is anticipated that sales and production will occur evenly throughout the whole period.

It is anticipated that the stock at the beginning of the period will be :

Product - A	400 units
Product - B	200 units
Material - X	1,000 kg
Material - Y	500 kg

The anticipated closing stock of the budget period will be :

Product - A	4 days' sales
Product - B	5 days' sales
Material - X	10 days' consumption
Material - Y	6 days' consumption

You are required to calculate the Material Purchases Budget and the Wages Budget for the direct worker showing the quantities and values, for the next period. 5+5

Please Turn Over

(5003)

8. (a) XYZ Ltd. has furnished you the following information for the month of December, 2025 :

Particulars	Budget	Actual
Output (units)	30,000	32,500
Hours	30,000	33,000
Fixed overhead	₹ 45,000	₹ 50,000
Variable overhead	₹ 60,000	₹ 68,000
Working days	25	26

You are required to calculate the following Overhead Variances :

- (i) Fixed Overhead Expenditure Variance
 - (ii) Fixed Overhead Volume Variance
 - (iii) Fixed Overhead Efficiency Variance
 - (iv) Variable Overhead Expenditure Variance
 - (v) Variable Overhead Volume Variance
 - (vi) Variable Overhead Cost Variance.
- (b) X Ltd. using a detailed system of standard costing finds that cost of investigation of variances is ₹ 20,000. If after investigation an out of control is discovered, the cost of correction is ₹ 30,000. If no investigation is made, the present value of extra cost involved is ₹ 1,50,000. The probability of the process being in control is 0.82 and the probability of the process being out of control is 0.18.

You are required to advise :

- (i) Whether investigation of the variances should be undertaken or not.
- (ii) The probability at which it is desirable to institute investigation into variances.

6+4