

Internal Assesment Test - II

Sub:	Strategic Cost Management				Code:	MBAFM313	
Date:	03/12/2025	Duration:	90 mts.	Max Marks:	50	Sem:	III
SET- 3 – QP & SOLUTION							

Part A - Answer Any Two Full Questions (2* 20 = 40 marks)

1 (a) Identify any three items that do not appear in the cost sheet.

Answer: Cash discount, Income tax paid and donation

(b) The following data related to the manufacture of a standard product during the month, 2024 Jan. Raw material consumed ₹80,000; Direct wages ₹48,000; Machine Hours worked 8,000; Machine Hour Rate ₹4, Office OH 10% of works cost; Selling OH Rs.1.50 per unit; Units produced 4,000; Units sold 3,600@₹50 each. You are required to prepare a cost sheet.

Solution: Prime Cost = ₹80,000 + ₹48,000 = ₹1,28,000; Works Overheads = $8,000 \times 4 = ₹32,000$; Works Cost = ₹1,60,000; Office Overheads = ₹16,000; Cost of Production = ₹1,76,000; Cost per Unit = ₹1,76,000 \div 4,000 = ₹44 per unit; Cost of Sales: ₹1,63,800; Sales: ₹1,80,000; Profit: ₹16,200

(c) A company makes two distinct types of vehicles, A and B. The total expenses during a period as shown by the books for the assembly of 600 of type A and 800 of the type B vehicles are as under:

Particulars	Amount (₹)
Materials	1,98,000
Direct wages	12,000
Stores overheads	19,800
Running expenses of machines	4,400
Depreciation	2,200
Labour amenities	1,500
Works general overheads	30,000
Administration and selling overheads	26,800

The other data available to you is:

Particulars	A:B
Material cost ratio per unit	1:2
Direct labour ratio per unit	2:3
Machine utilization ratio per unit	1:2

Calculate the cost of each vehicle per unit giving reasons for the bases of apportionment adopted by you.

Solution:

Cost per unit of Vehicle A = ₹145.31; Cost per unit of Vehicle B = ₹259.39

2 (a) Describe how service department costs are distributed to production departments. [03]

Answer: Service department costs are distributed to production departments using a suitable basis of apportionment such as floor area, labour hours, or machine hours. Each service cost is divided among production departments in proportion to the benefit received. This ensures accurate product costing and fair sharing of common service expenses. Common methods include direct method, step-down method, and reciprocal method.

(b) In a factory, there are three production departments A, B and C and two service departments X and Y. The departmental expenses for the month of January 2024 were given below: [07]

Production Depts	Service Depts
A – ₹1,65,000	X – ₹12,000
B – ₹3,60,000	Y – ₹10,000
C – ₹2,50,000	

The service department expenses are allocated on a percentage basis as follows:

Depts	A	B	C	X	Y
X	30%	20%	30%	-	20%
Y	40%	30%	20%	10%	-

Prepare a statement showing the distribution of service department expenses to production departments under repeated distribution method.

Solution: Department A = ₹1,74,031; Department B = ₹3,66,442; Department C = ₹2,56,502

(c) The following data were obtained from the books of S.N. Engineering company [10] for the half year ended 30th September 2022. Prepare a department distribution:

Particulars	Production Department			Service Department	
	A	B	C	X	Y
Direct wages	₹7,000	₹6,000	₹5,000	₹1,000	₹1000
Direct materials	₹3,000	₹2500	₹2000	₹1500	₹1000
Employees (Nos)	400	300	300	100	100
Electricity (Kwh)	8,000	6,000	6,000	2,000	3,000
Light points (Nos)	10	15	15	5	5
Asset values	₹50,000	₹30,000	₹20,000	₹10,000	₹10,000
Area occupied (Sq. Yards)	800	600	600	200	200

The overheads for 6 months were as under

Particulars	Amount (₹)	Particulars	Amount (₹)
Stores overheads	400	Depreciation	6000
Motive power	1500	Repairs and maintenance	1200
Electric lighting	200	General overheads	10,000
Labour welfare	3000	Rent and rates	600

Apportion the expenses of department X in the ratio of 4:3:3 and that of department Y in proportion to direct wages to departments A, B, C respectively.

Solution: Department A Overheads = ₹9,966; Department B Overheads = ₹7,523; Department C Overheads = ₹5,811

3 (a) What is marginal costing? How is it different from absorption costing? [03]

Answer: Marginal Costing is a costing technique where only variable costs (direct materials, direct labour, variable overheads) are charged to products, while fixed costs are treated as period costs and written off in the Profit & Loss Account. It

focuses on contribution analysis for decision-making. In marginal costing, only variable costs are included in product cost and closing stock is valued at variable cost only. In absorption costing, both variable and fixed costs are included in product cost and closing stock is valued at total cost (variable + fixed).

(b) The following information is given:

Sales = ₹2,00,000; Variable Cost = ₹1,20,000; and Fixed Cost = ₹30,000

Calculate (a) Break-even point

- (b) New break-even point if selling price is reduced by 10%
- (c) New break-even point if variable cost increases by 10%
- (d) New break-even point if fixed cost increases by 10%

Solution: a) Original BEP = 75,000; (b) SP reduced by 10% = 90,000; (c) VC increased by 10% = 88,235 (approx); (d) FC increased by 10% = 82,500

(c) You are given the following data:

Year	Sales (₹)	Profit (₹)
2023	1,20,000	9,000
2024	1,40,000	13,000

Assuming that the cost structure and selling price remain unchanged in two years, find out:

- a) P/V Ratio
- b) Break Even Point
- c) Profit when sales are ₹1,00,000
- d) Sales required to earn a profit of ₹20,000
- e) Margin of safety in 2024

Solution: P/V Ratio = 20%; Break-even Point = ₹75,000; Profit at Sales ₹1,00,000 = ₹5,000; Sales for Profit ₹20,000 = ₹1,75,000; Margin of Safety (2024) = ₹65,000

Part B - Compulsory (01*10=10 marks) – CASE STUDY

4 BK has 3 production departments M, N, O and 2 service departments P, Q. The following particulars are available for the month of December 2023:

Particulars	Amount (₹)	Particulars	Amount (₹)
Lease rental	35,000	Power and Fuel	4,20,000
Wages of factory supervisor	6,400	Electricity	5,600
Depreciation on:		Payroll expenses	21,000
Machinery	16,100	Canteen expenses	28,000
Building	18,000	ESI and Provident Fund Contribution	58,000

Following are the further details available:

Particulars	M	N	O	P	Q
Floor Space	1,200	1,000	1,600	400	800
Light point (no)	42	52	32	18	16
Cost of Machine (₹)	12,00,000	10,00,000	14,00,000	4,00,000	6,00,000
No. of employees	48	52	45	15	25
Direct Wages (₹)	1,72,800	1,66,400	1,53,000	36,000	53,000
H.P. of Machine	150	180	120	-	-
Working hours (hr)	1,240	1,600	1,200	1,440	1,440

The expenses of service departments are to be allocated in the following manner.

	M	N	O	P	Q
P	30%	35%	25%	-	10%
Q	40%	25%	20%	15%	-

You are required to calculate the OH absorption rate per hour in respectively of 3

production departments. Use simultaneous equation method.

Solution:

Let Total cost of P = p, Total cost of Q = q

$$p=63,200+0.15q \quad q=91,600+0.10pq = 91,600 + 0.10pq=91,600+0.10p$$

$$p=78,112$$

Department M: ₹218.87 per hour

Department N: ₹167.37 per hour

Department O: ₹219.01 per hour

Course Outcomes (COs)		PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1:	Understand the goals and strategies of business units (L2)	1 (a) 1 (b) 1 (c)								
CO2:	Determine standard costing and variance analysis cost control in Business decision making (L5)		2 (a) 2 (b) 2 (c)		4					
CO3:	Applications of Management accounting and control systems in Corporate (L3)			3 (a) 3 (b) 3 (c)						
CO4:	Critically evaluate all traditional and non-traditional costing methods such as absorption costing; marginal costing and activity-based costing (L5)									

Cognitive level	KEYWORDS
L1 - Remember	list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc.
L2 - Understand	describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate, interpret, discuss
L3 - Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify
L4 - Analyze	classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select
L5 - Evaluate	assess, decide, choose, rank, grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate
L6 - Create	design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate

PO1-Theoretical Knowledge; PO2-Foster Analytical and Critical Thinking Abilities for data-based decision making; PO3- Develop Value Based Leadership; PO4 –Ability to Understand and communicate various business aspects to global; PO5 –Ability to lead themselves and others in the achievement of organizational goals contributing effectively to a team environment;

PSO1- Comprehend Contemporary features of Business Management Science and its administration

PSO2- Analyze and interpret the dynamic situations for making Business Management strategies

PSO3- Handle responsibility with the ethical values for all actions undertaken by them

PSO4- Adapt and focus on achieving the organizational goal and objectives with complete zeal and commitment.

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HOD