

**Internal Assessment Test - I**

Sub:	Strategic Cost Management					Code:	22MBAFM305			
Date:	17.01.2024	Duration:	90 mts.	Max Marks:	50	Sem:	III	Branch:	MBA	
<b>SET- I</b>										

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								CO	RBT																																					
								Marks																																						
<b>Part A - Answer Any Two Full Questions ( 2* 20 = 40 marks)</b>																																														
1 (a)	Restate elements of cost.							[03]	CO1 L2																																					
<p>The elements of cost are those elements which constitute the cost of manufacture of a product. We can broadly divide these elements of cost into three categories. In a manufacturing organization, we convert raw materials into a finished product with the help of labor and other services. These services are Material, Labour and Expenses.</p>																																														
(b)	Describe how ABC Costing is found to trace accuracy in cost allocation?							[07]	CO1 L2																																					
<p>Activity-based costing (ABC) is a costing method that assigns <u>overhead</u> and indirect costs to related products and services. This <u>accounting method of costing</u> recognizes the relationship between costs, overhead activities, and manufactured products, assigning indirect costs to products less arbitrarily than traditional costing methods. However, some indirect costs, such as management and office staff salaries, are difficult to assign to a product.</p>																																														
(c)	Find out (i) Prime Cost (ii) Works Cost (iii) Cost of Production (iv) Total cost and sales:							[10]	CO1 L2																																					
<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 70%;">Particulars</th> <th style="width: 30%;">Rs.</th> </tr> </thead> <tbody> <tr><td>Stock of material on 01.01.2016</td><td style="text-align: right;">6,720</td></tr> <tr><td>Material purchased</td><td style="text-align: right;">1,50,000</td></tr> <tr><td>Material return to suppliers</td><td style="text-align: right;">2000</td></tr> <tr><td>Direct labour</td><td style="text-align: right;">50,000</td></tr> <tr><td>Direct Expenses</td><td style="text-align: right;">20,000</td></tr> <tr><td>Factory expenses</td><td style="text-align: right;">15,300</td></tr> <tr><td>Office &amp; administration overheads</td><td style="text-align: right;">8,000</td></tr> <tr><td>Selling &amp; Distribution expenses</td><td style="text-align: right;">7,900</td></tr> <tr><td>Stock of materials on 31/12/2016</td><td style="text-align: right;">7,720</td></tr> <tr><td>Profit</td><td style="text-align: right;">10,000</td></tr> </tbody> </table> <p><b>Statement of Cost Sheet</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Particulars</th> <th style="width: 35%;">Amount</th> <th style="width: 35%;">Amount</th> </tr> </thead> <tbody> <tr> <td>Stock of material</td> <td style="text-align: right;">6720</td> <td></td> </tr> <tr> <td>Material purchased</td> <td style="text-align: right;">150000</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: right;"><b>156720</b></td> <td></td> </tr> <tr> <td><b>Less: material return</b></td> <td style="text-align: right;"><b>2000</b></td> <td></td> </tr> </tbody> </table>								Particulars	Rs.	Stock of material on 01.01.2016	6,720	Material purchased	1,50,000	Material return to suppliers	2000	Direct labour	50,000	Direct Expenses	20,000	Factory expenses	15,300	Office & administration overheads	8,000	Selling & Distribution expenses	7,900	Stock of materials on 31/12/2016	7,720	Profit	10,000	Particulars	Amount	Amount	Stock of material	6720		Material purchased	150000		<b>Total</b>	<b>156720</b>		<b>Less: material return</b>	<b>2000</b>			
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<b>Less Stock of material</b>	7720	
<b>Material consumed</b>		<b>147000</b>
<b>Direct labour</b>		<b>50000</b>
<b>Direct Expenses</b>		<b>20000</b>
	Prime cost	<b>217000</b>
<b>Factory expenses</b>		<b>15300</b>
	Works cost	<b>232300</b>
<b>Office &amp; Admin. Overheads</b>		<b>8000</b>
	Cost of Production	<b>240300</b>
<b>Selling &amp; Distribution overheads</b>		<b>7900</b>
	Cost of Sales	<b>248200</b>
<b>Profit</b>		<b>10000</b>
	Sales	<b>258200</b>

2 (a) Recall cost allocation and cost apportionment.

Key differences between Cost Allocation and Cost Apportionment. Purpose: Cost Allocation is used to determine the cost of a specific department or activity, while Cost Apportionment is used to distribute the cost of a shared resource to multiple departments or activities.

[03]

CO1

L2

(b) What is ABC? Explain the steps involved in brief.

Activity Based Costing is based on the belief that in production process there are various activities which give rise to costs. ABC creates a link between activities and products by assigning a cost of activities to products based on an individual product.

According to Dansby and Lawrence 'In ABC costs are not initially traced to departments. Instead, costs are first traced to activities and then to products: Activities causing overheads (or cost drivers) are identified. These activities are later used as a base for allocating overhead costs to products.

identifying activities i.e. identifying major activities that take place in an organisation.

(2) Assigning costs to activity cost centres i.e. assigning costs to cost pools or cost centres for each activity

(3) Selecting appropriate cost drivers i.e. identifying the factors that influence the costs of particular activities.

(4) Assigning the cost of activities to products i.e. assigning such cost according to each products demand for activities.

[07]

CO1

L2

(c) The following particulars relate to a manufacturing company which have three production departments P1, P2, P3 and two service departments S1 and S2.

Particulars	P1	P2	P3	S1	S2
Total departmental overheads as per primary distribution (in Rs.)	6300	7400	2800	4500	2000

The company decided to charge the service department costs on the basis of following percentages:

Particulars	P1	P2	P3	S1	S2
S1	40%	30%	20%	-	10%
S2	30%	30%	20%	20%	-

Find the total overheads of production departments charging service departments cost to production departments by simultaneous equation and repeated distribution methods.

Solution:

$$X=4500 + 0.2Y$$

$$Y=2000+0.1X$$

$$10x-2y = 45000 \text{ \& } -x+10y = 20000$$

[10]

CO2

L5

On solving : X=5000 & Y = 2500

Secondary Distribution Summary

Particulars	Total	Production Departments		
		A	B	C
Total as per primary distribution	16400	6300	7400	2800
Department X 90%	4500	2000	1500	1000
Department Y 80%	2000	750	750	500
	23000	9050	9650	4300

Repeated Distribution:

Particulars	Production Departments			Service Departments	
	A	B	C	X	Y
Total as per primary distribution	6300	7400	2800	4500	2000
Dept X	1800	1350	900	-4500	450
Dept Y	735	735	490	490	-2450
Dept X	196	147	98	-490	49
Dept Y	15	15	10	9	-49
Dept X	4	3	2	-9	-
	9050	9650	4300	0	0

3 (a) Enumerate the reasons of under/over absorption of overhead. [03]

Fluctuations in Activity Levels: Overhead absorption rates are typically based on estimated or budgeted activity levels. If the actual activity levels are lower than expected, it can result in under-absorption. Conversely, higher activity levels can lead to over-absorption. Variations in production volumes or machine usage affect the allocation of overhead costs.

2. Changes in Overhead Costs: Overhead absorption rates rely on historical or estimated costs. However, actual overhead costs can differ due to factors such as utility costs, rent, maintenance expenses, or labor rates. If the actual costs exceed the estimates, it causes under-absorption, while lower actual costs can lead to over-absorption.

(b) A factory produces 100 units of a commodity. The cost of production is: [07]

Direct material	Rs.10000
Direct wages	Rs.5000
Direct expenses	Rs.1000
Factory overheads	Rs.6500
Administrative overheads	Rs.3480

If a profit of 25% on sales is to be realized, what would be the selling price of each unit of the commodity? Prepare and show it as a cost sheet.

Solution:

Particulars	Amount (in Rs.)
Direct material	10000
Direct wages	5000

Direct Expenses	1000
Prime cost	16000
Add: Factory overheads	6500
Works cost	22500
Add: administrative overheads	2480
Cost of Production	25980
Profit $\frac{1}{4}$ on sale = $\frac{1}{3}$ on cost	8660
Sale price	34640

- (c) A manufacturing company has two production departments A and B and three service departments Time keeping, Stores and Maintenance. The following are departmental expenses for a month:

[10]

CO2

L5

Particulars	Rs.
A	16000
B	10000
Service department:	
Time Keeping	4000
Stores	5000
Maintenance	3000

Other information is:

Particulars	Production Departments		Service Departments		
	A	B	Time keeping	Stores	Maintenance
No of employees	40	30	20	-	10
No of stores requisitions	24	20	-	-	6
Machine Hours	2400	1600			

Use 'Step Ladder method' in allocating departmental expenses.

Department	As per primary distribution summary				
Time keeping	4000	(-)4000			
Stores	5000	800	(-)5800		
Maintenance	2000	400	696	(-)4096	
A	16000	1600	2784	2458	22842
B	10000	1200	2320	1638	15158
	38000				38000
Time Keeping	No of employees: 4:2:8:6				
Stores	No of requisitions: 12:10:3				
Maintenance	Machine Hours 3:2				

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

4 A company has 3 production departments A, B and C and 2 service departments X and Y. The following data are extracted from the records of the company for a particular given period:

Rent and Rates = ₹ 25,000; Power = 7,500; General lighting = ₹ 3,000; Depreciation on machinery = ₹ 50,000; Indirect wages = ₹ 7,500; Sundries = ₹ 50,000

Particulars	Total (₹)	Departments				
		A	B	C	X	Y
Direct wages	50,000	15,000	10,000	15,000	7,500	2,500
HP of machine used	150	60	30	50	10	-
Cost of machinery	1,25,000	3,00,000	4,00,000	5,00,000	25,000	25,000
Production hour worked	-	6226	4028	4066	-	-
Floor space (sq. mts)	10,000	2,000	2,500	3,000	2,000	500
Lighting point	60	10	15	20	10	5

Service department expenses

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

You are required to,

i) Compute the overhead rate of production department using repeated distribution

Method.

[5]

(ii) Hence, determine the total cost of a product whose direct materials cost and direct labour cost are respectively Rs.250 and Rs.150 and which would consume 4 hours, 5 hours and 3 hours in department A,B and C respectively.

[5]

CO1

L5

CO1

L2

Solution:

Overhead Distribution summary

Particulars	Basis	Total	Production Departments			Service Departments	
			A	B	C	X	Y
Direct wages	Actual	10000				7500	2500
Rent & Rates	Area	25000	5000	6250	7500	5000	1250
G lighting	L points	3000	500	750	1000	500	250
Indirect wages	D Wages	7500	2250	1500	2250	1125	375
Power	HP	7500	3000	1500	2500	500	-
Depreciation	Value	50000	12000	16000	20000	1000	1000
Sundries	D Wages	50000	15000	10000	15000	7500	2500
<b>Total</b>		<b>153000</b>	<b>37750</b>	<b>36000</b>	<b>48250</b>	<b>23125</b>	<b>7875</b>
Redistribution of S1			4625	6937.50	9250	(23125)	2312.50
Redistribution of S2			4075	2037.50	3056	1018.75	10187.50
Redistribution of S1			203.75	306	407	(1018.75)	101.875
Redistribution of S2			40.75	20.375	31	10	(101.875)
Redistribution of S1			2	3	4	(10)	1
	<b>Total</b>		<b>466965</b>	<b>45304</b>	<b>60998</b>		
Production hours			6226	4028	4066		
Working rate per hour			7.50	11.25	15		

(b) cost of a product

Direct material cost	250.00
Direct labour cost	150.00
Overhead cost:	
A : 4 hours * 7.50	30.00

B : 5 hours \* 11.25  
 C: 3 hours \* 15  
 Total cost of the product

56.25  
 45.00  
 531.25

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

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	asses, 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.**

CI

CCI

HOD