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21COM3C13L

M.Com. III Semester Degree Examination, April/May - 2024

COMMERCE

Strategic Cost Management

(NEP)

Time : 3 Hours Maximum Marks : 70

Note : *Answer* ***any five*** *of the following questions with question No.* ***1 (Q.1) Compulsory****, each question carries* ***fourteen*** *marks.*

1. Aura Company decided to apply ABC analysis to three product lines : Ice creams, Milk shakes and Food Products. It identifies four activities and activity-cost rates for each activity as :

Ordering	Rs. 1,000 per purchase order
Delivery and receipt of merchandise	Rs. 800 per order
Shelf-stocking	Rs. 200 per hour
Customer support and assistance	Rs. 2 per item sold

The revenues, cost of goods sold, store support costs and activity area usage of the three product lines are :

Particulars	Ice Creams	Milk Shakes	Food Products
Financial Data :			
Revenue (Rs.)	5,70,000	6,30,000	5,20,000
Cost of Goods Sold (Rs.)	3,80,000	4,70,000	3,50,000
Store support	1,14,000	1,41,000	1,05,000
Activity-area usage (cost-allocation base)			
Ordering (purchase orders)	30	25	13
Delivery (deliveries)	98	36	28
Shelf-stocking (hours)	183	166	24
Customer support (items sold)	15,500	20,500	7,900

Under its previous costing system, Aura allocated support costs to products at the rate of 30 percent of cost of goods sold.

You are required to prepare a product-line profitability report for Aura's using :

(i) Traditional costing system.

(ii) ABC System. **14**

2. (a) Explain the management decisions influenced by learning. **7**

(b) Global Defense manufacturers radar systems. It has just completed the manufacture of its first newly designed system, RS-32. It took 3,000 direct manufacturing labour-hours (DMLH) to produce this one unit. Global believes that a 90 percent cumulative average-time learning model for direct manufacturing labour-hours applies to RS-32. (A 90 percent learning curve means b= -0.1520). The variable costs of producing RS-32 are :

Direct material costs	Rs. 8,00,000 per unit of RS-32
Variable manufacturing overheads costs	Rs. 250 per DMLH
Direct manufacturing labour costs	Rs. 150 per DMLH

Calculate the total variable costs of producing 2, 4 and 8 units. **7**

3. (a) What is life cycle costing ? Explain the need for use of life cycle costing. **7**

(b) Manu owns and operates Quality Craft Rentals, which offers canoe rentals and shuttle service on One River. Customers can rent canoes at one station, enter the river there and exit at one of two designated locations to catch a shuttle that returns them to their vehicles at the station they entered. Following are the costs involved in providing this service each year.

	Fixed Costs (Rs.)	**Variable Costs (Rs.)**
Canoe maintenance	1,95,000	213
Licenses and Permits	2,55,000	0
Vehicle leases	4,59,000	0
Station lease	5,88,200	0
Advertising	5,10,000	44
Operating costs	17,85,000	44

Quality Craft Rentals began business three years ago with a Rs. 17,85,000 expenditure for a fleet of 30 canoes. These are expected to last seven more years, at which time a new fleet must be purchased.

You are required : Manu is happy with the rental average of 5,44,000 per year. For this number of rentals, what price should he charge per rental for the business to make a 20 percent life-cycle return on investment ? **7**

4. (a) Explain the benefits of implementing JIT manufacturing system. **7**

(b) An MM Medical instrument is considering JIT implementation in 2025. MM's annual demand for product XJ-200, a surgical scalpel, is 20,000 units. If MM implements JIT, the purchase price of the scalpel is expected to increase from Rs. 100 to Rs. 100.5 because of frequent deliveries by AM Manufacturing Ltd. AM enjoys a sterling reputation for quality and reliability. Ordering costs will remain at Rs. 50 per order. However, the annual number of orders placed will be 200 instead of the current 20. As a result of frequent ordering. MM's order size will decrease proportionately. MM's required rate of return on investment is 20 percent. Other carrying costs (insurance, materials handling and so on) will remain at Rs. 45 per unit. Currently MM has no stockout costs. Lower inventory levels from implementing JIT will lead to Rs. 30 per unit stockout costs on 100 units during the year.

You are required to calculate the estimated savings (loss) for MM Medical Instruments from the adoption of JIT purchasing. **7**

5. Explain the steps in developing target price and target costs. **14**

6. Mr. A, the COO of BioDerm has asked his cost management team for a product-line profitability analysis of his firm's two products : Xderm and Yderm. The two skin care products require a large amount of research and development and advertising. After receiving the following statement from BioDerm's auditor, Mr. A CONCLUDES THAT Xderm is the more profitable product and that perhaps cost-cutting measures should be applied to Yderm.

	Xderm	**Yderm**	**Total**
Sales (Rs.)	30,00,000	20,00,000	50,00,000
Cost of Goods Sold	(19,00,000)	(16,00,000)	(35,00,000)
Gross profit	11,00,000	4,00,000	15,00,000
Research and development			(9,00,000)
Selling Expenses			(1,00,000)
Profit before taxes			5,00,000

Required :

(i) Explain why Mr. A may be wrong in his assessment of the relative performance of the two products.

(ii) Suppose that 80 percent of the R&D and selling expenses are traceable to Xderm. Prepare life-cycle income statements for each product. What does this tell you about the importance of accurate life-cycle costing ?

(iii) Consider again your answers in (i) and (ii) with the following additional information R&D and selling expenses are substantially higher for Xderm it is a new product. Mr. A has strongly supported development of the new product, including the high selling and R&D expenses. He has assured senior managers that the Xderm investment will pay off in improved profits for the firm. What are the ethical issues, if any, facing Mr. A as he reports to top management on the profitability of the firm's two products ? **14**

7.	(a)	Explain the philosophy of JIT and Sources of waste.	**9**
	(b)	Target costing vs. Traditional cost management process.	**5**
8.	(a)	Explain learning curve with graphical representation using values.	**5**
	(b)	Briefly explain factors affecting product life cycle costing.	**5**
	(c)	Write a note on market driven costing.	**4**

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