

**PJ-511**

III Semester M.Com. Examination, January - 2020
(CBCS Scheme)
COMMERCE

Paper- 3.4AT : Strategic Cost Management - I

Time : 3 Hours

Max. Marks : 70

SECTION - A

Answer **any seven** of the sub-questions. Each carries **two** marks. **7x2=14**

1. (a) Differentiate between Cost control and Cost reduction.
(b) What is meant by Kaizen Costing ?
(c) Define Cost management.
(d) What do you mean by Business process reengineering ?
(e) Give the meaning of ABC.
(f) Define Value analysis.
(g) State the objectives of Target Pricing.
(h) Define JIT.
(i) What is meant by Experience Curve ?
(j) Give the meaning of Cost centre.

SECTION - B

Answer **any four** questions. Each question carries **five** marks. **4x5=20**

2. Briefly explain the costing methods to be adopted in different stages of Product life cycle.
3. Explain the 6 R's of Business Process Re-Engineering.

4. The Cost details of a product are :

Direct material cost	50%
Direct wages	30%
Overheads	20%
Selling price	₹ 1,20,000

It is anticipated that next year the direct materials and direct labour cost will increase by 20% and 25% respectively. The effect of the increase in costs will cause a reduction of 25% in the amount of profit. Calculate the selling price required to be fixed for next year to earn the same percentage of profit on selling price as at present.

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5. Sun Ltd. is a manufacturer of a range of goods. The cost structure of its different products is as follows :

Particulars	Product A	Product B	Product C	
Direct materials	60	50	40	₹/Unit
Direct labours @ ₹ 10/hour	30	40	50	₹/Unit
Production overheads	20	30	40	₹/Unit
Total cost	110	120	130	₹/Unit
Quantity Produced & Sold	10,000	20,000	30,000	Units

Sun Ltd. was absorbing overheads on the basis of DLH. A newly appointed management accountant has suggested that the company should introduce ABC system and has identified cost drivers and cost pools as follows :

Activity Cost pool	Cost driver	Associated Cost
Stores Receiving	Purchase requisitions	3,96,000
Inspection	Number of Production runs	7,94,000
Dispatch	Orders executed	2,10,000
Machine Setup	Number of Setups	12,00,000

The following information is supplied :

Details	Product A	Product B	Product C
No. of Setups	360	390	450
No. of Orders Executed	180	270	300
No. of Production Runs	750	1050	1200
No. of Purchase requisitions	300	450	500

You are required to calculate activity based production cost of all the three products. The total production overheads are ₹ 36,00,000.



6. A company is considering cost saving project. This involves purchasing a machine costing ₹ 7,00,000, which will result in annual savings of ₹ 1,00,000 and on material costs of ₹ 40,000. The following forecasts are made of the rates of inflation each year for the next 5 years :

Wage Cost = 10%

Material Cost = 5%

General Prices = 6%

The Cost of Capital of the Company, in monetary terms is 15%. Evaluate the project assuming that the machine has life of 5 years and no scrap value. (P.V Factor @15% for 5 years = 0.869, 0.756, 0.657, 0.571, 0.497)

7. What are the benefits and drawbacks of Lean Cost Management ?

SECTION - C

Answer **any three** questions. Each question carries **Twelve** marks. **3x12=36**

8. Explain the methodology of Target Costing.
9. MNO manufactures four products namely A, B, C and D using the same plant and process. Following information relates to product period :

Product	Volume	Material cost per unit	Direct labour per unit	Machine Time per unit	Labour cost per unit
A	500	5	1/2 hour	1/4 hour	3
B	5,000	5	1/2 hour	1/4 hour	3
C	600	16	2 hours	1 hour	12
D	7,000	7	1 1/2 hours	1 1/2 hours	9

Total production overhead recovered by the cost accounting system is analysed under the following headings :

Factory overhead applicable to machine oriented activity	₹ 37,425
Set-up costs	₹ 4,355
Cost of ordering materials	₹ 1,920
Handling materials	₹ 7,580
Administration for spare parts	₹ 8,600

These overhead costs are absorbed by products on a machine hour rate of ₹ 4.8 per hour giving an overhead cost per product of

A = ₹ 1.20; B = ₹ 1.20; C = ₹ 4.80; D = ₹ 7.20

However, investigation into the production overhead activities for the period reveals the following totals :

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Product	No. of Setups	No. of Material order	No. of times material was handled	No. of spare parts
A	1	1	2	2
B	6	4	1	5
C	2	1	3	1
D	8	4	12	4
	17	10	270	12

You are required :

- A. To compute an overhead cost per product using activity based costing, tracing overheads to production units by means of cost drivers; and
- B. to comment briefly on the differences disclosed between overheads traced by the present system and those traced by activity based costing.

10. Engineers Ltd., plans to introduce two products A and B in the market. These will be manufactured in Department X, which will be treated as a profit centre.

Production volumes and costs are estimated as follows :

Product	A	B
Annual production (units)	3,00,000	5,00,000
Direct material cost per unit	150	180
Direct labour cost per unit (₹ 20 per hour)	300	420

The proportion of overheads other than interest, chargeable to two products A and B are as under :

Factory overheads	(50% fixed)	100% of direct wages
Administration overheads	(100% fixed)	10% of factory cost
Selling and distribution overheads	(50% variable)	₹ 30 and ₹ 40 respectively per unit of A and B

The fixed capital investment in the department will be ₹ 2,500 lakhs. The working capital requirement is equivalent to six month's stock of cost of sales of both the products. To finance this project a term loan of 50% of working capital required has been obtained from a financial institution at an interest rate of 18% per annum. Department X is expected to give a return of 20% on capital employed.

Required :

- A. Unit selling price for products A and B such that the contribution per labour hour (rounded up to the next higher integer), is the same for both the products.
- B. Statement of overall profitability expected.



11. A machine used on a production line must be replaced at least every four years. The costs incurred in running the machine according to its age are as follows :

PARTICULARS	Age of the Machinery (in Years)				
	0	1	2	3	4
Purchase Price	3000	-	-	-	-
Maintenance	-	800	900	1000	1000
Repairs	-	-	200	400	800
Net Realisable Value	-	1600	1200	800	400

Further replacement will be identical machines with same costs. Revenue is unaffected by the age of the machine. The cost of Capital is 15%. Determine optimum replacement cycle.

Present value factors at 15% for years 1, 2, 3 and 4 are 0.8696, 0.7561, 0.6575 and 0.5718 respectively. Present value of annuity at 15% for years 1, 2, 3 and 4 are 0.8696, 1.6257, 2.2832 and 2.8550 respectively.

12. A company has two divisions A and B. Division A has a budget of selling 2,00,000 Nos. of a particular component x to fetch a return of 20% on the average assets employed. The following particulars of Division A are also known :

Fixed overhead	₹ 5 lakhs
Variable cost	₹ 1 per unit
Average Assets :	
Sundry Debtors	₹ 2 lakhs
Inventories	₹ 5 Lakhs
Plant and Equipments	₹ 5 Lakhs

However, there is constraint in Marketing and only 1,50,000 units of the Component x can be directly sold to the market at the proposed price. It has been gathered that the balance 50,000 units of component x can be taken up by Division B. Division A wants a price of ₹ 4 per unit of x but division B is prepared to pay ₹ 2 per unit of x. Division A has another option in hand, which is to produce only 1,50,000 units of components x. This will reduce the holding of assets by ₹ 2 lakhs and fixed overhead by ₹ 25,000. You are required to advise the most profitable course of action for Division A.