Paper 15 – Strategic Cost Management – Decision Making

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Strategic Cost Management – Decision Making

Full Marks : 100 **Time allowed: 3 hours**

Section - A

1. Answer the following and each question carries 2 marks. [10×2=20]

(i) A company produces a product which is sold at a price of ₹80. Its Variable cost is ₹32. The company's Fixed cost is ₹11, 52,000 p.a. The company operates at a margin of safety of 40%.

The total sales of the company are:

(a) 4000 units

(b) 40,000 units

(c) 30,000 units

(d) 20,000 units

(ii) For a Learning Curve percentage of 72%, the time to be taken to complete the 4th unit of a 12-unit job involved in the assembly line, if the initial unit requires 80 hours, will be

(a) 43.50 hrs

(b) 41.47 hrs

(c) 46.71 hrs

(d) 40.95 hrs

(iii) The following information relates to ABC Ltd.

Activity level	**60%**	**80%**
Variable costs (₹)	**12,000**	**16,000**
Fixed costs (₹)	**20,000**	**22,000**

The differential cost for 20% capacity is:

(a) ₹4,000

(b) ₹2,000

(c) ₹6,000

(d) ₹5,000

(iv) Which of the following is NOT a method of transfer pricing?

(a) Cost plus transfer price

(b) Internal price plus transfer price

(c) Market-based transfer price

(d) Two part transfer price

(v) If project A has a net present value (NPV) of ₹30,00,000 and project B has an NPV of ₹ 50,00,000, what is the opportunity cost if project B is selected?

(a) ₹ 23,00,000

(b) ₹ 30,00,000

(c) ₹ 20,00,000

(d) ₹ 50,00,000

(vi) Which of the following is not a quality parameter for service organizations?

(a) Consistency

(b) Friendliness

(c) Durability

(d) Promptness

(viii) Twin Ltd. uses JIT and back flush accounting. It does not use a raw material stock control account. During March 2019, 10000 units were produced and sold. The standard cost per unit is ₹ 150 which includes materials of ₹ 60. During March 2019, ₹ 9,90,000 of conversion costs were incurred. The debit balance in cost of goods sold account for March 2019 should be

(a) ₹ 14,10,000

(b) ₹ 14,80,000

(c) ₹ 15,90,000

(d) ₹ 16,20,000

(ix) The preparation and use of standard costs, their comparison with actual costs and the measurement and analysis of variances to originating causes is defined as:

(a) Marginal Costing

(b) Standard Costing

(c) Throughput Costing

(d) Kaizen Costing

(x) In the context of Critical Path Analysis, the portion of the float of an activity which cannot be consumed without affecting adversely the float of the subsequent activities is called

(a) Free float

(b) Interfering float

(c) Independent float

(d) Total float

Section – B

Answer any five questions from question nos. 2 to 8. Each question carries 16 marks.

2. (a) Explain the concepts of Throughput Accounting. 8

(b) Explain Network Analysis narrating its practical applications. 8

3. (a) A Company manufactures two products X and Y. Product X requires 8 hours to produce while Y requires 12 hours. In April, 2018, of 22 effective working days of 8 hours a day, 1,200 units of X and 800 units of Y were produced. The company employs 100 workers in production department to produce X and Y. The budgeted hours are 1, 86,000 for the year. Calculate Capacity, Activity and Efficiency ratios and establish their relationship. 8

3. (b) Explain and enumerate 'Costs of Quality' under different groups. 8

4. XYZ. Limited makes three main products, using broadly the same production methods and equipment for each. A conventional product costing system is used at present, although Activity Based Costing (ABC) system is being considered. Details of the three products, for a typical period are:

	Labour Hours per Unit	Machine Hours per unit	Material (₹ Per unit)	Volumes (Units)
Product X	1 ½	3 ½	25	3,500
Product Y	½	2	15	2,250
Product Z	2	5	30	6,000

Direct labour costs are ₹8 per hour and production overheads are absorbed on a machine hour basis. The rate for the period is ₹18 per machine hour.

Further analysis shows that the total of production overheads can be divided as follows

	%
Costs relating to set-ups	30
Costs relating to machinery	25
Costs relating to materials handling	22
Costs relating to inspection	23
Total production overhead	100

The following activity volumes are associated with the product line for the period as a whole.

	Number of Set-ups	Number of movements of materials	Number of Inspections
Product X	65	15	150
Product Y	110	26	190
Product Z	485	79	570
	660	120	910

You are required:

(a) To calculate the cost per unit for each product using conventional methods.

(b) To calculate the cost per unit for each product using ABC principles. 4+12

5. (a) SV Ltd, engaged in the manufacture of four products, has prepared the following budget for 2018.

Products	A	B	C	D
Production Units	20,000	5,000	25,000	15,000
Selling Price ₹/unit	21.75	36.75	44.25	64.00
Direct Materials ₹/unit	6.00	13.50	10.50	24.00
Direct Wages ₹ /unit	7.50	10.00	18.00	24.00
Variable Overheads ₹ /unit	2.25	5.00	6.00	6.50
Fixed Overheads ₹ p.a.	75,000	25,000	2,25,000	1,80,000

When the budget was discussed, it was proposed that the production of C should be increased by 10,000 units for which capacity existed in 2018.

It was also decided that for the next year i.e. 2019, the production capacity should be further increased by 25,000 units over and above the increase of 10,000 units envisaged as above for 2018. The additional production capacity of 25,000 units should be used for the manufacture of product 'B' for which new production facilities were to be created at an annual fixed overhead cost of ₹35,000. The direct material costs of all the four products were expected to increase by 10% in 2019 while the other costs and selling prices would remain the same.

Required:

(i) Find the profit for 2018 on the assumption that the existing capacity of 10,000 units is utilised for product 'C' to maximize the profit.

(ii) Prepare a statement of profit for 2019.

(iii) Assuming that the increase in the output of product 'B' may not fully materialise in the year 2019, find the number of units of product B to be sold in 2019 to earn the same overall profit as in 2018. 3+3+3

(b) What is Benchmarking? What are the types of Benchmarking? 2+ 5

6. (a) A small maintenance project consists of the following twelve jobs whose precedence relations are identified with their node number:

Job (i,j)	:	(1,2)	(1,3)	(1,4)	(2,3)	(2,5)	(2,6)
Duration (in days)	:	10	4	6	5	12	9
Job (i,j)	:	(3,7)	(4,5)	(5,6)	(6,7)	(6,8)	(7,8)
Duration (in days)	:	12	15	6	5	4	7

(i) Draw an arrow diagram representing the project.

(ii) Calculate earliest start, earliest finish, latest finish time for all the jobs.

(iii) Find the critical path and project duration.

(iv) Tabulate total float, free float and independent float. **3+3+3+3**

(b) Narrate 2 routine business situations, where Pareto Analysis is useful. **2+2**

7. (a) A Departmental head has four subordinates and four tasks to be performed. The subordinates differ in efficiency, and the tasks differ in their intrinsic difficulty. His estimate, of the time each man would take to perform each task, is given in the matrix below:

Hour

Tasks	Men			
	E	F	G	H
A	18	26	17	11
B	13	28	14	26
C	38	19	18	15
D	19	26	24	10

How should the tasks be allocated to a man, so as to minimize the total man-hours?

(i) Calculate total man hours required to complete all the tasks as per assignment. **8+2**

(b) The following is the pattern for demand of cars rented out by a tourist operator observed for 100 days:

No. of cars	5	7	10	15
No. of days	20	30	40	10

The random numbers are 88, 76, 10, 05, 23

Required: Simulate the demand for cars over five days. **6**

8. Write Short Notes on any four: **4×4 = 16**

(a) Value Analysis

(b) Cost Reduction

(c) Transfer Pricing

(d) Sunk Cost

(e) Target Costing