# Paper – 15: Strategic Cost Management – Decision Making

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#### Full Marks: 100

Time allowed: 3 hours

[4×5= 20]

Question No.1 which is compulsory and carries 20 Marks and answer any 5 Question from Q. No 2 to Q No 8

#### 1. Answer any four questions from the following:

- (a) Is it justifiable to sell at a price below marginal cost at any time?
- (b) It is said that target costing fosters team work within organization comment.
- (c) Balance Score Card is an approach of defining and measuring the corporate Performance comment.
- (d) Sunk Cost are irrelevant for decision making comment.
- (e) Discuss the scope of Cost Reduction with respect to operating efficiency.
- 2. (a) H Ltd. manufactures three products. The material cost, selling price and bottleneck resource details per unit are as follows:

Particulars	Product X	Product Y	Product
Selling price (₹)	66	75	90
Material and other variable cost (₹)	24	30	40
Bottleneck resource time (minutes)	15	15	20

Budgeted factory costs for the period are ₹2,21,600. The bottleneck resources time available is 75,120 minutes per period.

Required:

- (i) Company adopted throughput accounting and products are ranked according to 'product return per minute' Select the highest rank product.
- (ii) Calculate throughput accounting ratio and comment on it.

(b) What is the difference between Cost Control and Cost Reduction? [4]

3. (a) Y Company has just been incorporated and planed to produce a product that will sell for ₹10 per unit. Preliminary market surveys show that demand will be around 10,000 units per year. The company has the choice of buying one of the two machines 'A' would have fixed costs of ₹30,000 per year and would yield a profit of ₹30,000 per year on the sale of 10,000 units. Variable costs behave linearly for both machines. Machine B would have F.C of ₹18,000 p.a. and would yield a profit of ₹22,000 p.a. on the sale of 10,000 units.

Required to:

- (a) Break-even sales for each machine
- (b) Sales level where both machines are equally profitable
- (c) Range of sales where one machine is more profitable than the other. [9]

(b) Write a note on phases in Product Life Cycle?

[7]

[12]

4. (a) Compute the missing data indicated by the Question marks from the following:

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	Product 'R'	Product 'S'
Sales quantity		
Std. (units)	Ś	400
Actual (Units)	500	Ś
Price (Unit)		
Standard	₹12	₹15
Actual	₹15	₹20
Sales price variance	Ś	Ś
Sales volume variance	₹1,200 F	Ś
Sales value variance	Ś	Ś

Sales mix variance for both the products together was ₹450 F, 'F' denotes Favourable.

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(b) The Standard labour complement and the actual labour complement engaged in a week for a job are as under:

	Skilled	Semi-Skilled	Unskilled
	Workers	workers	Workers
(a) Standard No. of workers in the gang	32	12	6
(b) Standard wage rate per hour Rs.	3	2	1
(c) Actual no. of workers employed in the	28	18	4
gang during the week			
(d) Actual wage rate per hour	₹4	₹3	₹2

During the 40 hour working week the gang produced 1,800 standard labour hours of work.

Calculate:

- i) Labour efficiency variance;
- ii) Mix variance;
- iii) Rate of wages variance;
- iv) Labour cost variance.
- 5. (a) Relevant data relating to a company are:

			Products		
		Р	Ø	R	Total
Production and sales (units)		60,000	40,000	16,000	
Raw material usage in units		10	10	22	
Raw material costs	₹	50	40	22	24,76,000
Direct labour hours		2.5	4	2	3,42,000
Machine hours		2.5	2	4	2,94,000
Direct labor costs	₹	16	24	12	
No. of production runs		6	14	40	60
No. of deliveries		18	6	40	64
No. of receipts		60	140	880	1,080
No. of production orders		30	20	50	100

Overheads:	₹
Setup	60,000
Machines	15,20,000
Receiving	8,70,000
Packing	5,00,000
Engineering	7,46,000

The company operates a JIT inventory policy and receives each component once per production run.

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Required:

- (i) Compute the product cost based on direct labour-hour recovery rate of overheads.
- (ii) Compute the product cost using activity based costing.

(b) Limitation of Intra-firm comparison?

- 6. (a) A company produces that products P, Q and R from three raw materials A, B and C. One unit of product P requires 2 units of A and 3 units of B. A unit of product Q requires 2 units of B and 5 units of C and one unit of product requires 3 units of A, 2 unit B and 4 units of C. The company has 8 units of material A, 10 units of B and 15 units of C available to it. Profits/unit of products P, Q and R are ₹3, ₹5 and ₹4 respectively.
  - (a) Formulate the problem mathematically,
  - (b) Write the Dual problem.

[8]

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[5]

(b) A salesman has to visit five cities A, B, C, D and E. The inter-city distances are tabulated below. Note the distance between two cities need not be same both ways.

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From/To	А	В	С	D	E
A	-	12	24	25	15
В	6	-	16	18	7
С	10	11	-	18	12
D	14	17	22	-	16
E	12	13	23	25	-

Note further that the distances are in k.m. Required:

If the salesman starts from city A and has to come back to city A, which route would you advise him to take that total distance traveled by him is minimised? [8]

7. (a) A practicing Cost and Management Accountant now spends ₹0.90 per k.m on taxi fares for his client's work. He is considering to other alternatives the purchase of a new small car or an old bigger car.

Item	New Small Car	Old Bigger Car
	(₹)	(₹)
Purchase price	35,000	20,000
Sales price after 5 years	19,000	12,000
Repairs and servicing per annum	1,000	1,200
Taxes and insurance p.a.	1,700	700
Petrol consumption per liter (k.m.)	10	7
Petrol price per liter	3.5	3.5

He estimates that he does 10,000 k.m annually. Which of the three alternatives will be cheaper? If his practice expands he has to do 19,000 k.m p.a will be cost of the two cars break even and why? Ignore interest and income-tax. [8]

(b) Desktop Co. manufactures and sells 7,500 units of a product. The full cost per unit is ₹100. The Company has fixed its price so as to earn a 20% return on an investment of ₹9,00,000.

Required:

(i) Calculate the selling price per unit from the above. Also, calculate the mark-up % on the full Cost per unit.

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- (ii) If the Selling price as calculated above represents a mark-up % of 40% on Variable cost per unit. Calculate the Variable cost per unit.
- (iii) Calculate the Company's income if it had increased the selling price to ₹115. At this price, the Company would have sold 6,750 units. Should the company have increased the selling price to ₹230?
- (iv) In response to competitive pressures, the Company must reduce the price to ₹105 next year, in order to achieve sales of 7,500 units. The company also plans to reduce its investment to ₹8,25,000. If a 20% return on investment should be maintained, what is the Target Cost per unit for the next year?

### 8. Write short note on the following:

[4×4=16]

- (a) Limitation of Absorption Costing;
- (b) Limiting Factor or Key Factor;
- (c) Pareto Analysis;
- (d) Features of Target Costing.