

Paper 15 – Strategic Cost Management – Decision Making



Paper – 15

Strategic Cost Management – Decision Making

Full Marks : 100

Time allowed: 3 hours

Section - A

1. Answer the following. Each question carries 2 marks.

[10×2= 20]

- (i) Company 'B' uses throughput accounting system. The details of product X per unit are as follows:

Selling price	₹ 50
Material cost	₹ 16
Conversion costs	₹ 20
Time on bottleneck resource	8 minutes

The throughput return per hour for product X is:

- (a) ₹ 105
(b) ₹ 225
(c) ₹ 255
(d) ₹ 375
- (ii) Back flush costing is most likely to be used when
- (a) Management desires sequential tracking of costs
(b) A Just-in-Time inventory philosophy has been adopted
(c) The company carries significant amount of inventory
(d) Actual production costs are debited to work-in-progress
- (iii) Empire Hotel has a capacity of 100 single rooms and 20 double rooms. Average occupancy is 70% for 365 days of the year. The rent for a double room is kept at 130% of a single room. The total room occupancy days in a year in terms of single room is
- (a) 32193
(b) 30660
(c) 31660
(d) 30993

- (iv) Which of the following is correct in the context of network analysis?
- (a) There can be one or more activities without a predecessor in a network.
 - (b) Where two activities have the same start and end events, the end event of one activity is numbered differently and then connected by a dummy to the original start event.
 - (c) When crashing is carried out, the non-critical paths have to remain non critical.
 - (d) If the critical path is longer than the other paths, the project may be completed by using a path having a shorter duration.
- (v) A Ltd. manufactures 4 products A,B,C & D with sales value mix of 33 1/3%, 41 2/3%, 16 2/3% & 8 1/3% and variable cost of 60%, 68%, 80% & 40% of selling price respectively. Budgeted sale value is ₹ 60,000. Overall P/V ratio is
- (a) 40%,
 - (b) 35%,
 - (c) 28%
 - (d) 32%
- (vi) Which of the following statements is correct?
- (a) Standard costing facilitates the integration of accounts so that reconciliation between cost accounts and financial accounts may be eliminated.
 - (b) Standard costs are planned costs determined on a scientific basis and they are based upon certain assumed conditions of efficiency and other factors.
 - (c) Standard costing is defined as the preparation and use of standard costs, their comparison with actual cost and the measurement and analysis of variances to their cause and points of incidence.
 - (d) All of the above.
- (vii) Efficiency Ratio is
- (a) Available working days/ Budgeted working days x100
 - (b) Budgeted hours / Maximum hours in budgeted period x 100
 - (c) Standard hours / Actual hours x 100
 - (d) None of the above
- (viii) Linear Programming is a technique for
- (a) Optimization
 - (b) Minimization
 - (c) Maximization
 - (d) None of These

- (ix) Hungarian method is a way to solve problem related to:
- (a) Transportation
 - (b) Assignment
 - (c) Learning Curve
 - (d) None of These
- (x) A company produces two joint products, P and V. In a year, further processing costs beyond split-off point spent were ₹ 8,000 and ₹ 12,000 for 800 units of P and 400 units of V respectively. P sells at ₹ 25 and V sells at ₹ 50 per unit. A sum of ₹ 9,000 of joint cost were allocated to product P based on the net realization method. What was the total joint cost for the year?
- (a) ₹ 20,000
 - (b) ₹ 10,000
 - (c) ₹ 15,000
 - (d) None of these

Section – B

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

2. (a) Explain the concept of Life Cycle Costing. 8
- (b) The Learning curve as a management accounting has now become or going to become an accepted tool in industry, for its applications are almost unlimited. When it is used correctly, it can lead to increased business and higher profits; When used without proper knowledge, it can lead to lost business and bankruptcy. Illustrate the use of learning curve for calculating the expected average units cost of making (a) 4 machines and (b) 8 machines by using the data below:
- | | | | |
|--|---|----------------|---|
| Direct labour need to make first machine | = | 1000 hrs. | |
| Learning curve | = | 90% | |
| Direct labour cost | = | ₹ 15 per hour. | |
| Direct material cost | = | ₹ 1,50,000 | |
| Fixed cost for either size orders | = | ₹ 60,000. | 8 |
3. (a) Amit Co. manufactures and sells 15,000 units of a product. The full cost per unit is ₹ 200. The Company has fixed its price so as to earn a 20% return on an Investment of ₹ 18,00,000.
- 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 contribution if it had increased the selling price to ₹ 230. At this price, the Company would have sold 13,500 units. Should the Company have increased the selling price to ₹ 230?
- (iv) In response to competitive pressures, the Company must reduce the price to ₹ 210 next years, in order to achieve sales of 15,000 units. The Company also plans to reduce its investment to ₹ 16,50,000. If a 20% Return on Investment should be maintained, what is the Target Cost per unit for the next year? 3×4=12
- (b) What is Target Cost? How would you determine it? 2+2=4

4. (a) The Budgeted overheads and Cost driver volumes of XYZ are as follows:

Cost pool	Budgeted Overheads (₹)	Cost Driver	Budgeted Volume
Material Procurement	5,80,000	No. of orders	1,100
Material Handling	2,50,000	No. of movements	680
Set-up	4,15,000	No. of set-ups	520
Maintenance	9,70,000	Maintenance hours	8,400
Quality Control	1,76,000	No. of inspection	900
Machinery	7,20,000	No. of M/c hours	24,000

The company has produced a batch of 2,600 components of AX-15. Its material cost was ₹ 1,30,000 and labour cost ₹ 2,45,000. The usage activities of the said batch are as follows: Material orders-26, Maintenance hours-690, Material movements-18, Inspection-28, Set ups-25 and M/c hours-1,800.

Calculate Cost Driver Rates that are used for tracing appropriate amount of overheads to the said batch and ascertain the cost of batch of components, using Activity Based Costing.

- (a) Krish of India presently operates its plant at 80% of the normal capacity to manufacture a product exclusively to meet the demand of Government of India under a rate contract. He supplies the product for ₹ 4,00,000 and earns a profit margin of 20% on sales realizations. Direct Cost per unit is constant.

The indirect costs as per his budget projection are:

Indirect Costs	20,000 units (80% capacity) (₹)	22,500 units (90% capacity) (₹)	25,000 units (100% capacity) (₹)
Variable	80,000	90,000	1,00,000
Semi-Variable	40,000	42,500	45,000
Fixed	80,000	80,000	80,000

He received an export order for the product equal to 20% of its present operations. Additional packing charges on this order will be ₹ 1,000.

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As a Management Accountant, calculate the differential costs and the price to be quoted for the export order so as to give his a profit margin of 10% on the export price. 8

5. (a) Seema Ltd., has prepared the following budget for the year:

Particulars	Activity Level	
	60%	80%
Raw Materials (₹)	30,00,000	40,00,000
Direct Wages (₹)	18,00,000	24,00,000
Factory Overheads (₹)	32,00,000	36,00,000
Total (₹)	80,00,000	1,00,00,000

The policy of the company is to charge 25% on variable costs to cover profit. Raw material is in short supply and the company wants to utilize its available supply of raw materials in an optimum manner. Planned operating capacity is 80%.

The company has to execute a job, as per details given below:

Raw Materials (₹) : 40,000

Direct Wages (₹) : 30,000

You are required to quote the price of the job, in accordance with the policy of the company. 10

(b) What are the advantages of Inter-firm comparison? 6

6. (a) DM is a denim brand specializing in the manufacture and sale of hand-stitched jeans trousers. DM manufactured and sold 10,000 pairs of jeans during a period. Information relating to the direct labour cost and production time per unit is as follows:

	Actual Hours Per Unit	Standard Hours Per Unit	Actual Rate Per Hour	Standard Rate Per Hour
Direct Labour	0.65	0.60	₹ 120	₹ 100

Note: 0.65 hours per unit of actual time includes the idle time.

During the period, 800 hours of idle time was incurred. In order to motivate and retain experienced workers, DM has devised a policy of paying workers the full hourly rate in case of any idle time.

Required:

(i) Idle time Variance

(ii) Labour Efficiency variance

3+5=8

(b) What are the advantages of Standard Costing? 8

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7. ABC Pvt. Ltd., which has a satisfactory preventive maintenance system in its plant has installed a new Hot Air Generator based on electricity instead of fuel oil for drying its finished products. The Hot Air Generator requires periodic shutdown maintenance. If the shutdown is scheduled yearly, the cost of maintenance will be as under:

Maintenance Cost	Probability
₹ 15,000	0.3
₹ 20,000	0.4
₹ 25,000	0.3

The costs are expected to be almost linear i.e. if the shutdown is scheduled twice a year the maintenance cost will be double.

There is no previous experience regarding the time taken between breakdowns. Costs associated with breakdown will vary depending upon the periodicity of the maintenance. The probability distribution of breakdown cost is estimated as under.

Break down cost p.a.	Yearly Shut down	Half yearly shut down
₹ 75,000	0.2	0.5
₹ 80,000	0.5	0.3
₹ 1,00,000	0.3	0.2

Simulate the total costs – maintenance and breakdown costs – and recommend whether shutdown overhauling should be resorted to once a year or twice a year? 16

8. Write Short Notes on any four:

4 × 4 = 16

- Principles of Business Process Re-engineering
- Relevant Costs
- PRAISE Analysis
- Vogel's Approximation Method (VAM)
- PERT & CPM

