FINAL EXAMINATION
December 2017

P–17(SPM)
Syllabus 2012

Strategic Performance Management

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.
This question paper has been divided into 2 parts
Section-A (20 marks) & Section-B (80 marks).

Section-A (20 Marks)

1. Answer the following questions: 4×5=20

(a) The cost function is C = 100 + q, where q = Quantity of the product. The product is sold at ₹ 5 per unit. Determine the break-even sales and profit when 125 units are sold.

(b) The following information relates to budgeted operation of Division X of a manufacturing company:

Particulars	Amount (₹)
Sales : (50000 units of ₹ 8)	4,00,000
Less : Variable cost @ ₹ 6 per unit	3,00,000
Contribution Margin	1,00,000
Less : Fixed Costs	75,000
Divisional Profit	25,000

The amount of divisional investment is ₹ 1,50,000 and the minimum desired rate of return on the investment is the cost of capital of 20%.

(i) Calculate divisional expected ROI;

(ii) Calculate divisional expected RI;

(iii) Comment on the results of (i) and (ii).

(c) The cost function 'C' for the commodity 'q' is given by $C = 2q^3 - 8q^2 + 10q$. Find the average variable cost and also the value of q for which average variable cost is minimum.

(d) Describe the term 'Business Process Re-engineering'.

(e) Explain the terms the 'Exchange Rate Risk' and 'Liquidity Risk'.

Please Turn Over

Section-B (80 Marks)

Five Questions are to be answered out of Seven Questions.

(Each question carrying total 16 marks)

2. (a) A Company has to replace one of its machines, which has become unserviceable. Two options are available:

(i) A more expensive machine (EM) with 12 years of life;

(ii) A less expensive machine (LM) with 6 years of life.

If machine LM is chosen, it will be replaced at the end of 6 years by another LM machine. The pattern of maintenance, running costs and prices are as under:

Particulars	EM (₹)	LM (₹)
Purchase Price	10,00,000	7,00,000
Scrap value at the end of life	1,50,000	1,50,000
Overhauling is due at the end of	8th year	4th year
Overhauling costs	2,00,000	1,00,000
Annual Repairs	1,00,000	1,40,000

Cost of Capital - 14%.

You are required to recommend with supporting calculations, which of the machine should be purchased.

	Discounting factor
End of 4th year	0·5921
End of 6th year	0·4556
End of 8th year	0·3506
End of 12th year	0·2076
Years 1-6	3·8890
Years 1-12	5·660

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(b) Discuss briefly about the myths regarding BPR. 6

3. (a) A manufacturing company has to select one of the two products *A* or *B* for manufacturing. Product *A* requires investment of ₹ 25,000 and product *B* ₹ 45,000. Market research survey

shows high, medium and low demands with corresponding probabilities and returns from sales, in ₹ thousand for the two products, in the following table:

Market Demand	Probability		Return from Sales (₹'000)	
	A	B	A	B
High	0·4	0·3	50	80
Medium	0·3	0·5	30	60
Low	0·3	0·2	10	50

Construct an appropriate Decision tree. What decision the company should take? 10

(b) Discuss briefly the issues addressed by Lean Management. 6

4. (a) Amit Ltd., provides the following details on its new product.

Years 1 and 2 : R&D Costs : ₹ 2,40,000, Design Costs ₹ 1,60,000.

Years 3 to 6 : Other Functional Costs:

Function	One-time Costs (₹)	Costs per unit (₹)
Production	1,00,000	25
Marketing	70,000	24
Distribution	50,000	16
Customer Service	80,000	30

The sale quantities during the Product Life Cycle at various selling prices are:

Selling Price per unit (₹)	400	480	600
Sale Quantity in units	5,000	4,000	2,500

Ignoring the time value of money, compute the Net Incomes generated over the Product Life Cycle of various prices. Which price should the company select?

Assume the R&D Costs and Design Costs represent the Total Costs incurred in 2 years. 10

(b) The price (P) per unit at which company can sell all that it produces is given by the function $p(x) = 300 - 4x$. The cost function is $500 + 28x$, where 'x' is the number of units. Find x, so that the profit is maximum. 6

5. (a) How Government can play an important role in promoting E-Commerce? 8

(b) Data Mining is one of the fastest growing field in Computer industry. Discuss. 8

6. (a) Ruin Theory was basically developed for studying the insurers vulnerability to insolvency. Discuss. 8

(b) "Every Corporate Strategy in a company must have Human Aspects". Comment. 8

7. (a) "Supplier Development Training" and "Supplier Integration in New Product Development are both important aspects of an active management to achieve a sustainable competitive advantage". Describe both the aspects. 3+3=6

(b) Write short notes on the following: 4+4+2=10

(i) Information Sharing;

(ii) Information Technology; and

(iii) Insource vs. Outsource.

8. (a) List major aspects of production that may lead to sickness. Indicate probable causes against each such aspect. 4+4=8

(b) Write one or two sentences on each of the following topics in the context of Corporate Risk Management: 2×4=8

(i) Objective of Corporate Risk Management

(ii) Risk reporting and review

(iii) Relationship between Risk and Strategy

(iv) Market volatility

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