

FINAL EXAMINATION

June 2016

*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 3 parts viz., Section-A (60 marks),
Section-B (20 marks) and Section-C (20 marks).*

Please Note:

- ◆ From Section A: Performance Management, you are to Answer Question No. 1, which is compulsory, carrying 20 marks. Further answer *any two* questions from the rest of the questions in this section, each carrying 20 marks.
- ◆ From Section B: IT & Econometric tool in Performance Management, you are to answer *any two* questions, each carrying 10 marks.
- ◆ From Section C: Enterprise Risk Management, you are to answer *any two* questions, each carrying 10 marks.

Section – A (60 marks)

Performance Management

Answer question No. 1, which is compulsory, carrying 20 marks.

*Further answer any two questions from the rest of the questions
in this section, each carrying 20 marks.*

1. Whirlpool Corporation is a leader of the \$100 billion global home appliance industry. Infact, it is the World's leading manufacturer and marketer of major home appliances, with an annual sales of around \$30 billion, with a man-power strength of about 80,000 and having 80 manufacturing and technology research centers around the world. Its main products are Washing Machines, Refrigerators, Dishwashers, Water-filters etc., Whirlpool is committed to a brand value creation strategy focusing on Innovation, Cost Productivity, Product Quality and Consumer Value. The company continues to improve its global operating platform to ensure that it is the best-cost and best-quality appliance manufacturer worldwide.

Whirlpool's supply chain has been transformed to better deliver products to its trade customers and consumers. The benefits of action are evident through a stronger network, increased efficiencies and timely deliveries.

Please Turn Over

Until recently, the company's strategic focus was on its products and brands. In recognition of environmental changes, attention was shifted to their supply chain and how best to manage it. The need to focus on the supply chain was also instigated by major internal and organizational changes. Furthermore, it was recognized that two issues required attention:

- (i) The desire for trade partners to hold lots of inventory (which impacted cash flows)
- (ii) Customers needing their products quickly.

One of the goals constraining the redesign of their Supply Chain was to ensure that a customer's order could be fulfilled and delivered to the customer at the earliest.

The company set about its operations/supply chain strategy with the aim of improving cash flow, reducing costs, improved inventory management, improved customer satisfaction, improved cash flow and providing the right service to customers.

The first aspect of Whirlpool's strategy was the order process. Process, technology and inventory changes were made. Systems required replacement and integration with its system. Overall, there was a need to improve visibility within the supply chain.

Secondly, the company rationalized facilities, reducing the no. of buildings from 184 to 84. The company consolidated major warehouses into 10 regional distribution centers, resulting in cost savings of over \$60 Million.

Thirdly, they optimized supply and demand with changes to demand planning models and Software and integration with upstream suppliers.

Required:

- (i) Briefly state the importance of Supply Chain Management.
- (ii) Describe the objectives of Supply Chain Management.
- (iii) Describe the challenges that are faced by Whirlpool. What were the drivers for change to the Supply Chain?
- (iv) What are the benefits of change to the Supply Chain?
- (v) Describe the Whirlpool's Strategy? 4+4+4+4+4

2. (a) A house-wife is looking at ways of producing domestic hot water and considers two possibilities on electric immersion heater, having an installation cost of ₹ 160 and an estimated annual electrical charges of ₹ 200 and a gas boiler, with an installation cost of ₹ 760 with an annual fuel bills of ₹ 80.

Assuming yourself as a consultant to the cost-conscious-housewife, advise her suitably by comparing two systems, on the basis of:

- (i) total expenditure and
- (ii) Present value, over a 5-year period. Take interest at 9%.

- (b) What will be your recommendation, if you consider both the equipment for a 8 years period 10
- (i) On total cost basis:
- (ii) PV basis:

The PV factor @ 9% p.a. is as given below:

Year :	0	1	2	3	4	5	6	7	8
PV factor :	1.000	0.9174	0.8417	0.7722	0.7084	0.6499	0.5963	0.5470	0.5019

3. (a) Seema Ltd., having a complex air-borne navigating system incorporates a sub-assembly, which unroll a map of the flight plan synchronously with the movement of the aeroplane. This sub-assembly is bought on very good terms from a sub-contractor but is not always in perfect adjustment on delivery. The sub-assembly can be readjusted on delivery to guarantee accuracy at a cost of ₹ 50 per sub-assembly. It is not, however possible to distinguish visually those sub-assemblies that need adjustment.

Alternatively, the sub-assemblies can each be tested electronically at a cost of ₹ 10 per sub-assembly tested. Past experience shows that about 30% of those supplied are defective, the probability of test indicate a bad adjustment when the sub-assembly is faulty is 0.8, while the probability that the test indicates a good adjustment when the sub-assemblies is properly adjusted is 0.7. If adjustment is not made and the sub-assembly is found to be faulty when the system has its final check, the cost of subsequent rectification will be ₹ 140.

As a Management Accountant, draw up an appropriate Decision Tree to show the alternatives open to the purchaser and use it to determine his appropriate course of action? 10

- (b) State the different types of Bench-marking, with a small write-up on each? 10

4. (a) Karishma Ltd., manufacturing electronic equipments, is currently buying component A from a local supplier at a cost of ₹ 30 each. The company has under its consideration a proposal to install a machine for the manufacture of the component.

Two alternative proposals are available as under:

- Installation of Semi-automatic machine, involving an annual fixed cost of ₹ 18 lakhs and a variable cost of ₹ 12 per component manufactured.
- Installation of an automatic machine, involving an annual fixed cost of ₹ 30 lakhs and a variable cost of ₹ 10 per component manufactured.

As a Cost and Management Accountant, you are required to find out:

- (i) The annual requirement of the component to justify a switch over from purchase of components to

- (a) manufacture of the same by installing semi-automatic machine and
- (b) manufacture of the same by installing an automatic machine.

- (ii) If the annual requirement of the component is 5,00,000 units, which machine would you advice the company to install? 10

- (b) Name the important Key Performance Indices (KPI) that should be monitored? 10

Section – B (20 marks)

IT and Econometric tool in Performance Management

You are to answer any two questions in this section, each carrying 10 marks.

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| 5. What are the Objectives of 'Six Sigma'? Write a few lines on each of these objectives. | 5+5 |
| 6. (a) What do you mean by the term 'Data Warehousing' (DW)?
(b) What is 'Data Mining'? Briefly explain. | 5+5 |
| 7. (a) Explain what do you mean by the term 'Dash Board'?
(b) Draw a Comparison between Dash Board and Score Card? | 5+5 |

Section – C (20 marks)

Enterprise Risk Management

In this section, you are to answer any two questions, each carrying 10 marks.

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| 8. There are different recommendations to reduce the Risk of the Corporate Failures. Mention these recommendations. | 10 |
| 9. Explain the Genetic Algorithm under the Corporate Bankruptcy Prediction Models. | 10 |
| 10. Discuss about the Risk Retention, Describe the guidelines to be followed for Risk Retention. | 5+5 |
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