Paper – 17 - Strategic Performance Management

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

This paper contains 10 questions, divided in three sections Section A, Section B and Section C. In total 7 questions are to be answered.
From Section A, Question No.1 is compulsory and answer any two questions from Section A (out of three questions - Questions Nos. 2 to 4). From Section B, Answer any two questions (i.e. out of Question nos. 5 to 7). From Section C, Answer any two questions (i.e. out of Question nos. 8 to 10).

Students are requested to read the instructions against each individual question also . All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

Section –A

[Question 1 is compulsory and answers any 2 from the rest]

1. Read the following case study and answer the following questions:
A Prominent Foreign Bank found itself in a precarious position: Its commercial loan volume was static, but the unit's operating costs were increasing annually. Customer responsiveness was adequate for the industry, but not the competitive advantage that the bank needed. Managers wanted to engage employees in an ongoing, continuous improvement culture.

Bank facilitated a week-long session attended by senior management from each of the four regional operations centers, as well as internal business partners from IT, HR, and Sales. The team's goal was to use Voice of the Customer (VOC) analytics to see the business through the eyes of their customers, eliminate process steps that added no value, and develop the best future state for loan processing. At the end of the workshop, the group had a vision for the future operations flow and an agreed-upon roadmap to get there.

Through a series of rapid improvement projects, groups of 8 to 12 employees worked to scrutinize a particular segment of the lending process and find ways to eliminate waste and improve the flow of work. Overall, six improvement projects were completed over a five-month period, engaging employees across three locations to create a new workflow that would improve the experience for customers and employees — and lower costs for the bank. A limited two-week pilot was launched to further refine and evaluate the new process. Employees in one location set up the new process and then worked to iron out details in the live customer environment. A week-long evaluation period followed, where the collected data was analyzed and discussed.

The elimination of redundant and unnecessary steps in the lending process led to dramatic increases in loan processing speed and capability. Analysis of the results from the pilot showed that the target of 20 percent productivity improvement was met and exceeded by an additional 10-15 percent gain. The lead time necessary to process a loan transaction also decreased from 4-8 hours to 20-60 minutes. The bank validated those results with pilots at two other sites. The project team and management team had the confidence to plan the full-scale roll-out of the new process.

After full implementation of the new process, the bank was able to reduce:
- Process steps from 140+ to 70
- Decision points from 20 to 14
- Physical hand-offs from 46 to 11; and electronic hand-offs from 16 to 14
- Operating expenses from $10 to $8 million
- Delivery time from 4-8 hours to 20-60 minutes with fewer errors and rework

Required to:

(a) State the shortcomings faced by the foreign bank before developing the new process.

(b) Discuss the result achieved by the bank after implementing the new process.

(c) Describe the advantages achieved by the foreign bank after full implementation of the new process.

(d) Describe the steps taken by the bank to face the challenge. **[4+5+5+6]**

2. (a) A company is organized into two large Divisions. Division 'A' produces a component which is used by Division 'B' in making a final product. The final product is sold for ₹400 each. Division A has a capacity to produce 2,000 units and the entire quantity can be purchased by Division B.

Division A informed that due to installation of new machines, its depreciation cost had gone up and hence wanted to increase the price of the component to be supplied to Division B to ₹220. Division B, however can buy the component from the outside market at ₹200 each. The variable cost of Division A is ₹190. The variable costs of Division B in manufacturing the final product by using the component are ₹150 (excluding the component cost).

Present statement indicating the position of each Division and the company as a whole taking each of the following situations separately.

(i) If there are no alternative used for the production facilities of A, will the company benefit if Division B buys from outside suppliers at ₹200 per component?

(ii) If internal facilities of A are not otherwise idle and the alternative use of the facilities will give an annual cash operating saving of ₹30,000 to Division A, should Division B purchase the component from outside suppliers?

(iii) If there are no alternative used for the production facilities of Division A and the selling price for the component in the outside market drops by ₹15, should Division B purchase from outside suppliers?

(iv) What transfer price would you fix for the component in each of the above circumstances?

(b) Discuss the role of the Management Accountant in Value Chain Analysis.

(c) State the steps of Business Process Re-Engineering. **[10+5+5]**

3.(a) A Finance Manager is considering drilling a well. In the past, only 70% of wells drilled were successful at 20 metres depth in that area. Moreover, on finding no water at 20 metres, some persons in that area drilled it further up to 25 metres but only 20% struck water at that level. The prevailing cost of drilling is ₹ 500 per metre. The Finance Manager estimated that in case he does not get water in his own well, he will have to pay ₹ 15,000 to buy water from outside for the same period of getting water from the well. The following decisions are considered:

(i) Do not drill any well;

(ii) Drill up to 20 metres, and

(iii) If no water is found at 20 metres, drill further upto 25 metres.

Draw an appropriate decision tree and determine the Finance Manager's optimal strategy.

(b) Describe the Performance Prism Model in the context of evaluation of Financial and Financial and Non Financial Performance.

(c) Discuss the Risk Adjusted Discount Rate Method.

(d) From the following information Calculate EVA:

Equity Share Capital	₹ 5,00,000
13% Preference Share Capital	₹ 2,00,000
Reserves and Surplus	₹ 6,00,000
Non trade investments (Face Value ₹ 1,00,000), Rate of Interest	10%
20% Debentures	₹ 3,00,000
Profits before tax	₹ 3,00,000
Tax Rate	40%
WACC	13%

[5+5+5+5]

4 (a) $Cost = 300x - 10x^2 + \frac{1}{3}x^3$, Calculate

(i) Output at which Marginal Cost is minimum
(ii) Output at which Average Cost is minimum
(iii) Output at which Marginal Cost = Average Cost.

(b) The total cost (C) and the total revenue (R) of a firm are given C (x) = $x^3 + 60x^2 + 8x$; R(x) = $3x^3 - 3x^2 + 656x$, x being output. Determine the output for which the firm gets maximum profit. Also obtain the maximum profit.

(c) Listing the steps of the principles of Lean.

(d) Distinguish between ABC and ABM. **[6+6+5+3]**

Section – B
[Answer any 2]

5 (a) List the Advantages of these Data Envelopment Analysis.
(b) "Data quality management incorporates a virtuous cycle in which continuous analysis, observation, and improvement lead to overall improvement in the quality of organizational information across the board. This virtuous cycle incorporates five fundamental data quality management practices, which are ultimately implemented using a combination of core data services." – Discuss the five fundamentals. **[5+5]**

6 (a) Describe about the Malm Quist Index (MI).
(b) Discuss the benefits of Total Productivity Management (TPM). **[6+4]**

7. Define the following term in the context of Supply Chain Management:
(a) Capacity Utilization, **(b)** In source vs Outsource, **(c)** Logistics Management, **(d)** Strategic Alliance (e) Supplier Performance Evaluation. **[2x5]**

Section C
[Answer any 2]

8. (a) Discuss the needs for Implementation of ERM.
(a) State the objectives of Risk Management. **[5+5]**

9. "Just as diseases are identified by certain symptoms, industrial sickness too can be identified by some symptoms." - Justify the statement. **[10]**

10. (a) Describe about the Dr. L.C. Gupta's Sickness Prediction Model under the corporate failure.

(b) Discuss the Total Loss Distribution **[6+4]**