

PAPER – 17: Strategic Performance Management

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Time Allowed: 3 Hours

Full Marks: 100

Section A

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

1. Answer any 4 from the below

(a) (i) ROI = $\frac{₹25,000}{₹1,50,000} \times 100 = 16.7\%$

(ii) RI = Divisional Profit – Minimum desired rate of return
= ₹25,000 – (20% × ₹1,50,000)
RI = (₹5,000)

(b) $x = 106 - 2p \Rightarrow x - 106 = -2p$

$$p = \frac{x - 106}{-2} = \frac{106 - x}{2}$$

$$R = \frac{106x - x^2}{2}$$

$$\text{Total Cost} = 5x + \frac{x^2}{50}$$

$$\text{Profit} = \frac{106x - x^2}{2} - 5x - \frac{x^2}{50}$$

$$\frac{dp}{dx} = \frac{(106 - 2x)}{2} - 5 - \frac{2x}{50} = 0$$

$$\frac{dp}{dx} = 53 - x - 5 - \frac{2x}{50} = 0$$

$$48 = x \left(1 + \frac{1}{25} \right)$$

$$x = \frac{1200}{26}$$

$$\frac{d^2p}{dx^2} = \frac{-26}{25} < 0$$

$\therefore P$ is maximum at $x = \frac{1200}{26}$

(c) Capacity ₹ 4 lakh units

No of units that can be sold at S. P of ₹50 is 1 lakh

When the S. P. reduced to 45 demand will be 2 lakh

When the S. P. is reduced to 40 demand will be 4 lakh

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Full capacity will be utilized at S. P. of	40
Target profit (25% of Selling Price) 25% of 40	<u>10</u>
Target Cost	<u>30</u>

(d) **Benefits of Risk Mapping:**

- Promotes awareness of significant risks through priority ranking, facilitating the efficient planning of resources.
- Enables the delivery of solutions and services across the entire risk management value chain.
- Serves as a powerful aid to strategic business planning.
- Aids the development of an action plan for the effective management of significant risks.
- Assigns clear responsibilities to individuals for the management of particular risk areas.
- Provides an opportunity to leverage risk management as a competitive advantage.
- Facilitates the development of a strategic approach to insurance programme design.
- Supports the design of the client's risk financing and insurance programmes, through the development of effective/optimal retention levels and scope of coverage etc.

(e) **Technical and Operational Factors of E-commerce**

(i) Protocol (Standards) Making Process

A well-established telecommunications and Internet infrastructure provides many of the necessary building blocks for development of a successful and vibrant e-commerce marketplace.

(ii) Delivery Infrastructure

Successful e-commerce requires a reliable system to deliver goods to the business or private customer.

(iii) Availability of Payment Mechanisms

Secure forms of payment in e-commerce transactions include credit cards, checks, debit cards, wire transfer and cash on delivery.

(iv) General Business Laws

The application of general business laws to the Internet will serve to promote consumer protection by insuring the average consumer that the Internet is not a place where the consumer is a helpless victim.

(v) Public Attitude to E-commerce

The public attitude toward using e-commerce in daily life is a significant factor in the success of e-commerce.

(vi) Business Attitude to E-commerce

The willingness of companies to move away from traditional ways of doing business and develop methods and models that include e-commerce is essential.

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2. (a) Total overheads = $1,47,150 \times 96 = 1,41,26,400$
 Operations (variable) O. H's = $1,41,26,400 \times 75\% = 1,05,94,800$
 Balance 25% (fixed) = $1,41,26,400 \times 25\% = 35,31,600$
 Operations O.H's under ABC for A = $1,05,94,800 \times 5/7 = 75,67,714$
 Operations O. H's under ABC for B = $1,05,94,800 \times 2/7 = 30,27,086$
 Fixed O. H.'s under ABC for A: $35,31,600 \times 50\% = 17,65,800$
 Fixed O.H's under ABC for B: $35,31,600 \times 50\% = 17,65,800$

Statement showing computation of profit under ABC as per marketing manager suggestion

	A		B		Total (A + B)
	Unit	Total	Unit	Total	
Materials	125	93,75,000	125	93,75,000	1,87,50,000
Labour	24	18,00,000	24	18,00,000	36,00,000
Direct expenses	36	27,00,000	36	27,00,000	54,00,000
Prime cost	185	1,38,70,000	185	1,38,70,000	2,77,50,000
Variable O. H.'s	101	75,67,714	404	30,27,086	1,05,94,800
Fixed O. H's	24	17,65,800	24	17,65,800	35,31,600
Total cost	310	2,32,08,514	250	1,86,67,886	4,18,76,400
Profit	20	15,41,486	25	19,57,114	34,98,600
Sales	330	2,47,50,000	275	2,06,25,000	4,53,75,000

As the profit is more at the marketing manager proposal by ₹9,34,250 and hence his proposal may be accepted

2. (b) **Objectives of Performance Appraisal:**

(i) To review the performance of the employees over a given period of time.
(ii) To judge the gap between the actual and the desired performance.
(iii) To help the management in exercising organizational control.
(iv) Helps to strengthen the relationship and communication between superior – subordinates and management – employees. subordinates and management – employees.
(v) To diagnose the strengths and weaknesses of the individuals so as to identify the training and development needs of the future.
(vi) To provide feedback to the employees regarding their past performance.
(vii) Provide information to assist in the other personal decisions in the organization.
(viii) Provide clarity of the expectations and responsibilities of the functions to be performed by the employees.
(ix) To judge the effectiveness of the other human resource functions of the organization such as recruitment, selection, training and development.
(x) To reduce the grievances of the employees.

3. (a) We observe that all entries in the third row of the given matrix are greater than, or equal to, the corresponding entries in the first row. Thus the first row is dominated by the third row and as such can be deleted. The deletion of the first row leads to the following matrix.

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	B ₁	B ₂	B ₃	B ₄
A ₂	3	4	2	4
A ₃	4	2	4	0
A ₄	0	4	0	8

Next, all elements of the first column are at least equal to their counterparts in the third column. We can, thus, delete the first column to get the following matrix:

	B ₂	B ₃	B ₄
A ₂	4	2	4
A ₃	2	4	0
A ₄	4	0	8

We notice now that the first column is dominated by a convex linear combination of the second and the third columns because

$$4 > \frac{1}{2}(2) + \frac{1}{2}(4); \quad 2 = \frac{1}{2}(4) + \frac{1}{2}(0); \quad \text{and} \quad 4 = \frac{1}{2}(0) + \frac{1}{2}(8)$$

Its deletion results in the following:

	B ₃	B ₄
A ₂	2	4
A ₃	4	0
A ₄	0	8

Similarly, the first row is equated to the convex linear combination of the other two rows as shown.

$$2 = \frac{1}{2}(4) + \frac{1}{2}(0); \quad \text{and} \quad 4 = \frac{1}{2}(0) + \frac{1}{2}(8)$$

Hence, we deleted the first row to get the following 2 x 2 matrix which can be solved analytically.

	B ₃	B ₄
A ₃	4	0
A ₄	0	8

For this game,

$$x = \frac{8-0}{(4+8)-(0+0)} = \frac{8}{12} = \frac{2}{3}; \quad y = \frac{8-0}{(4+8)-(0+0)} = \frac{8}{12} = \frac{2}{3}; \quad \text{and} \quad v = \frac{4 \times 8 - 0 \times 0}{(4+8)-(0+0)} = \frac{32}{12} = \frac{8}{3}.$$

Thus, the optimal strategy for A is (0, 0, 2/3, 1/3), for B it is (0, 0, 2/3, 1/3) and the game value $v = 8/3$.

(b) Business Applications of ABM

- (i) **Cost Reduction:** ABM helps the Firm to identify opportunities in order to streamline or reduce the costs or eliminate the entire activity, especially NVA activities. It is useful in identifying and quantifying process waste, leading to continuous process improvement through continuous cost reduction.
- (ii) **Activity Based Budgeting:** Activity Based Budgeting analyses the resource input or cost for each activity. It provides a framework for estimating the amount of resources required in accordance with the budgeted level of activity. Actual results can be compared with budgeted results to highlight (both in financial and non-financial terms) those activities with major discrepancies for potential reduction in supply of resources. It is a planning and control system, which supports continuous improvement.

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- (iii) **Business Process Re-Engineering (BPR):** BPR is the analysis and redesign of workflows and processes in a Firm, to achieve dramatic improvement in performance, and operational excellence. A business process consists of linked set of activities, e.g. purchase of materials is a business process consisting of activities like Purchase Requisition, Identifying Suppliers, preparing Purchase Orders, mailing Purchase Orders and follow up. The process can be reengineered by sending the production schedule direct to the suppliers and entering into contractual agreement to deliver materials according to the production schedule.
- (iv) **Benchmarking:** It involves comparing the Firm's products, services or activities with other best performing organizations, either internal or external to the Firm. The objective is to find out how the product, service or activity can be improved and ensure that the improvements are implemented.
- (v) **Performance Measurement:** Activity performance measures consist of measures relating to costs, time quality and innovation. For achieving product quality, some illustrative performance measures are -

Area	Measures
Quality of purchased component	Zero Defects
Quality of output	Percentage yield
Customer Awareness	No. of orders, no. of complaints

4. (a) Life cycle income Statement (in ₹000s)

Particulars	Package ECE				Package CE				Package IE			
	Y1	Y2	Total	%	Y1	Y2	Total	%	Y1	Y2	Total	%
Revenues	500	2,000	2,500	100%	600	900	1,500	100%	1,000	600	1,600	100%
Costs												
R&D	700	-	700	28%	450	-	450	30%	240	-	240	15%
Design	115	85	200	8%	105	15	120	8%	76	20	96	6%
Manufacturing	25	275	300	12%	110	100	210	14%	165	43	208	13%
Marketing	160	340	500	20%	150	120	270	18%	208	240	448	28%
Distribution	15	60	75	3%	24	36	60	4%	60	36	96	6%
Cust. Service	50	325	375	15%	45	105	150	10%	220	388	608	38%
Total Costs	1065	1,085	2150	86%	884	376	1260	84%	969	727	1696	106%
Profit			350	14%			240	16%			(96)	-6%

Observation: Package ECE is most profitable, while package IE is least profitable.

4. (b) There are many bases on which the open price discrimination is practiced. These are discussed below:
- (i) **Time Price Differentials:** It is a general practice to use the expression "the demand for a product or service", but it is important to note that demand also has a time dimension. The demand may shift in fairly short-time intervals. For example, demand for telephone facilities is more in the day time rather than at night.
- (ii) **Use Price differentials:** Different buyers have different uses of a product or a service. For example railways can be used for long-haul or short-haul freight traffic. Railways can also be used for transporting different types of commodities. Electricity can similarly, be used for industrial or residential purposes.

(iii) Quality price Differentials: If the product caters to that group of consumers who are concerned about its quality, then the quality becomes a significant determinant of demand elasticity. The seller has, therefore, to create differences in quality to sell his product. It must be emphasized here that the differences in quality basically depend upon the buyers' understanding of the quality. Sellers use many devices to create quality differences.

Quantity Differentials: When the seller discriminates on the basis of the quantity of purchase, it is known as quantity differentials. Quantity discounts are price concessions based on the size of the lot purchased at one time and delivered at one location. These discounts are thus related to size of a single purchase. The size of the lot purchased is measured in terms of either physical units or monetary units. Sometimes, discounts are according to the trade status, i.e., wholesaler, retailer, jobber, etc.

5. (a) Strategic Decision for Risk Management

Risk Handling: In ideal risk management, a prioritization process is followed whereby risks with the greatest loss and the greatest probability of occurring are handled first, and risks with lower probability loss are handled later.

Risk Reduction: This strategy is attempted to decrease the quantum of losses arising out of a risky happening e.g. earthquake, storm, flood etc. It involves methods that reduce severity of the loss arising from risk consequences. Risk reduction can be achieved through (a) loss prevention, and (b) loss control.

Risk Avoidance: This is prevention and a proven strategy. This strategy results in complete elimination of exposure to loss due to a specific risk. It may involve avoidance of an activity, which is risky. It includes deliberate attempt on part of the person taking risk decision not to perform an activity or not to accept a proposal, which is risk prone. This strategy can be approached in two ways: (a) Don't assume risk, and (b) Discontinue of an activity to avoid risk.

Risk Retention: This strategy is adopted when risk cannot be avoided, reduced or transferred. It involves accepting the loss when it occurs by taking risky proposal or risky assignment where there are no other alternatives to avoid risk. It can be a voluntary or involuntary action. When it is voluntary, it is retained through implied agreements. Involuntary retention occurs when the organization is unaware of the risk and faces it when it comes up.

Risk Transfer: It means causing another party to accept the risk, typically by contract. It involves a process of shifting risk responsibility on others. Insurance is one type of risk transfer, which is widely used in common parlance.

Risk Hedging: It is a systematic process of reducing risk associated with an investment proposal or in some other assignments where risk is inevitable i.e. the risk is of such nature that it cannot be avoided altogether.

Risk Diversification: It involves identifying both systematic and unsystematic risks. Systematic risk is inherent and is peculiar to the type of business/firm and can be reduced or diversified through functional level strategy. The unsystematic risk is external to the organization and is termed as 'market risk'. The identification of characteristics of market risk through statistical correlation 'beta, which is a measure of market risk, lends itself for manipulation through portfolio management. This strategy is followed in reduction of risk of single portfolio by investing in shares, debentures, bonds, treasury bills etc. to reduce overall risk of the portfolio.

Risk Sharing: Taking an insurance coverage for the exposure is the common method of sharing risk. By paying insurance premium, the company shares the risk with an insurance company. The insurance company can also share its risk with other insurance companies by doing reinsurance.

Risk Pooling: It is the process of identification of separate risks and put them all together in a single blanket, so that the monitoring, integrating or diversifying risk can be implemented.

5. (b) **Causes of Corporate Failure:**

Technological causes

Traditional methods of doing work have been turned upside down by the development of new technology. If within an industry, there is failure to exploit information technology and new production technology, the firms can face serious problems and ultimately fail.

By using new technology, cost of production can be reduced and if an organization continues to use the old technology and its competitors start using the new technology; this can be detrimental to that organization. Due to high cost of production, it will have to sell its products at higher prices than its competitors and this will consequently reduced its sales and the organization can serious problems.

This situation was seen in the case of Mittal Steel Company taking over Arcelor Steel Company. Arcelor Steel Company was using its old technology to make steel while Mittal Steel Company was using the new technology and as a result, Mittal Steel Company was able to sell steel at lower price than Arcelor Steel Company due to its low cost of production. Arcelor Steel Company was approaching corporate failure and luckily, Mittal Steel Company merged with Arcelor Steel Company and became Arcelor Mittal Steel Company, thus preventing Arcelor from failure.

Working capital problems

Organizations also face liquidity problems when they are in financial distress. Poor liquidity becomes apparent through the changes in the working capital of the organization as they have insufficient funds to manage their daily expenses.

Businesses, which rely only on one large customer or a few major customers, can face severe problems and this can be detrimental to the businesses. Losing such a customer can cause big problems and have negative impact on the cash flows of the businesses.

Besides, if such a customer becomes bankrupt, the situation can even become worst, as the firms will not be able to recover these debts.

Economic distress

A turndown in an economy can lead to corporate failures across a number of businesses. The level of activity will be reduced, thus affecting negatively the performance of firms in several industries. This cannot be avoided by businesses.

The recent economic crisis in the USA led to many cases of corporate failures. One of them is the insurance AIG insurance company. It is facing serious problems and it might close its door in the near future.

Mismanagement

Inadequate internal management control or lack of managerial skills and experience is the cause of the majority of company failures. Some managers may lack strategic

capability that is to recognize strengths, weaknesses, opportunities and threats of a given business environment. These managers tend to take poor decisions, which may have bad consequences afterwards.

Furthermore, managers of different department may not have the ability to work closely together. There are dispersed department objectives, each department will work for their own benefits not towards the goal of the company. This will bring failure in the company. One example can be WorldCom, where the finance and legal functions were scattered over several states and communication between these departments were poor.

Over-expansion and diversification

Research has shown that dominant CEO is driven by the ultimate need to succeed for their own personal benefits. They neglect the objective set for the company and work for their self-interest. They want to achieve rapid growth of the company to increase their status and pay level. They may do so by acquisition and expansion.

The situation of over expansion may arise to the point that little focus is given to the core business and this can be harmful as the business may become fragment and unfocused. In addition, the companies may not understand the new business field. Enron and WorldCom can be an example for this situation where the managers did not understand how growing overcapacity would influence its investment and therefore did not comprehend the risks associated with it.

Fraud by management

Management fraud is another factor responsible for corporate collapse. Ambitious managers may be influenced by personal greed. They manipulate financial statements and accounting reports. Managers are only interested in their pay checks and would make large increase in executive pay despite the fact that the company is facing poor financial situation. Dishonest managers will attempt to tamper and falsify business records in order to fool shareholders about the true financial situation of the company. These fraudulent acts or misconduct could indicate a serious lack of control. These frauds can lead to serious consequences: loss of revenue, damage to credibility of the company, increased in operating expenses and decrease in operational efficiency.

Poorly Structured Board

Board of Directors is handpicked by CEO to be docile and they are encouraged by executive pay and generous benefits. These directors often lack the necessary competence and may not control business matters properly. These directors are often intimidated by dominant CEO and do not have any say in decision making. Example Enron and WorldCom where poorly structured board was a contributor towards their failure.

Financial distress

Firms that become financially distressed are found to be under-performing relative to the other companies in their industry. Corporate failure is a process rooted in the management defects, resulting in poor decisions, leading to financial deterioration and finally corporate collapse. Financial distresses include the following reasons also low and declining profitability, investment Appraisal, Research and Development and technical insolvency amongst others.

A firm may fail, as its returns are negative or low. A firm that consistently reports operating losses probably experiences a decline in market value. If the firm fails to earn a return greater than its cost of capital, it can be viewed as having failed. Falling profits have an

obvious link with both financial and bankruptcy as the firm finds it is not generating enough money to meet its obligations as they fall due.

Another cause that will lead the company to fail is the investment appraisal. Many organizations run into difficulties as they fail to appraise investment projects carefully. The long-term nature of many projects means that outcomes are difficult to forecast and probabilities are usually subjective. "Big project gone wrong" is a common cause of decline. For example, the acquisition of a loser company, this has happened in the case for the failure of Parmalat Co Ltd of Italy, which made the acquisition of several losses making company where Inappropriate evaluation of the acquired company, its strengths and weaknesses.

6. (a) The Data Warehouse is a collection of integrated, subject-oriented databases designed to support the Decision-Support Functions (DSF), where each unit of data is relevant to some moment in time. A Data Warehouse includes the following categories of data, where the classification is accommodated to the time-dependent data sources:
- (i) Old detail data
 - (ii) Current (new) detail data
 - (iii) Lightly summarized data
 - (iv) Highly summarized data
 - (v) Metadata (the data directory or guide).

To prepare these five types of elementary or derived data in a Data Warehouse, the fundamental types of data transformation are standardized. There are four main types of transformations, and each has its own characteristics:

- (i) Simple Transformations** - These transformations are the building blocks of all other more complex transformations. This category includes manipulation of data that is focused on one field at a time, without taking into account its values in related fields. Examples include changing the data type of a field or replacing an encoded field value with a decoded value.
- (ii) Cleansing and Scrubbing** - These transformations ensure consistent formatting and usage of a field, or of related groups of fields. This can include a proper formatting of address information, for example. This class of transformations also includes checks for valid values in a particular field, usually checking the range or choosing from an enumerated list.
- (iii) Integration** - This is a process of taking operational data from one or more sources and mapping it, field by field, onto a new data structure in the data warehouse. The common identifier problem is one of the most difficult integration issues in building a data warehouse. Essentially, this situation occurs when there are multiple system sources for the same entities and there is no clear way to identify those entities as the same. This is a challenging problem, and in many cases it cannot be solved in an automated fashion. It frequently requires sophisticated algorithms to pair up probable matches. Another complex data-integration scenario occurs when there are multiple sources for the same data element. In reality, it is common that some of these values are contradictory, and resolving a conflict is not a straightforward process. Just as difficult as having conflicting values is having no value for a data element in a warehouse. All these problems and corresponding automatic or semiautomatic solutions are always domain-dependent.

(iv) Aggregation and Summarization - These are methods of condensing instances of data found in the operational environment into fewer instances in the warehouse environment. Although the terms aggregation and summarization are often used interchangeably in the literature, we believe that they do have slightly different meanings in the data-warehouse context. Summarization is a simple addition of values along one or more data dimensions; e.g., adding up daily sales to produce monthly sales. Aggregation refers to the addition of different business elements into a common total; it is highly domain-dependent. For example, aggregation is adding daily product sales and monthly consulting sales to get the combined, monthly total.

6. (b) **Technical and Operational Factors of E-commerce**

(i) Protocol (Standards) Making Process

A well-established telecommunications and Internet infrastructure provides many of the necessary building blocks for development of a successful and vibrant e-commerce marketplace.

(ii) Delivery Infrastructure

Successful e-commerce requires a reliable system to deliver goods to the business or private customer.

(iii) Availability of Payment Mechanisms

Secure forms of payment in e-commerce transactions include credit cards, checks, debit cards, wire transfer and cash on delivery.

(iv) General Business Laws

The application of general business laws to the Internet will serve to promote consumer protection by insuring the average consumer that the Internet is not a place where the consumer is a helpless victim.

(v) Public Attitude to E-commerce

The public attitude toward using e-commerce in daily life is a significant factor in the success of e-commerce.

(vi) Business Attitude to E-commerce

The willingness of companies to move away from traditional ways of doing business and develop methods and models that include e-commerce is essential.

7. (a) As per Altman's Model (1968) of Corporate distress Prediction

$$Z = 1.2 X_1 + 1.4 X_2 + 3.3 X_3 + 0.6 X_4 + 1.0 X_5$$

Here, the five variables are as follows:

$$X_1 = \text{Working Capital to Total Assets} = \left(\frac{1,40,000}{7,00,000} \right) = 0.20$$

$$X_2 = \text{retained Earnings to Total Assets} = \left(\frac{60,000}{7,00,000} \right) = 0.0857$$

$$X_3 = \text{EBIT to Total Assets} = \left(\frac{1,40,000}{7,00,000} \right) = 0.20$$

$$X_4 = \text{Market Value of Equity and Preference Shares to Book value of Total Debt} = \left(\frac{2,50,000}{4,40,000} \right) = 0.568$$

$$X_5 = \text{sales to Total Assets} = \left(\frac{7,00,000}{7,00,000} \right) = 1 \text{ times}$$

$$\text{Hence, Z-score} = (1.20 \times 0.20) + (1.4 \times 0.0857) + (3.3 \times 0.20) + (0.6 \times 0.568) + (1 \times 1) \\ = 0.24 + 0.11998 + 0.66 + 0.3408 + 1 = 2.36078$$

Notes:

1. Calculation of Working Capital

Working Capital = Current Assets - Current Liabilities

$$\text{Here, Working Capital} = (\text{Inventory} + \text{Book Debts} + \text{Loans \& Advances} + \text{Cash at Bank}) \\ - (\text{Sundry Creditors} + \text{Outstanding Expenses}) \\ = ₹(1,80,000 + 70,000 + 20,000 + 10,000) - (80,000 + 60,000) \\ = ₹1,40,000$$

2. Calculation of Total Assets

Total Assets = Fixed Assets + Current Assets

$$\text{Here, Total Assets} = ₹ [4,20,000 + (1,80,000 + 70,000 + 20,000 + 10,000)] = ₹7,00,000$$

3. Calculation of Retained Earnings

Retained Earnings = Reserves & Surplus = ₹60,000

4. Calculation of Earnings before Interest & Tax (EBIT)

$$\text{EBIT} = \text{Operating Profit} = ₹1,40,000$$

5. Calculation of Market Value of Equity

$$\text{Market Value of Equity Shares} = 20,000 \text{ shares} \times ₹12.50 = ₹2,50,000$$

6. Calculation of Book Value of Total Debts

Book Value of Total Debts = Long-term Debts + Current Liabilities

$$\text{Here, Book Value of Total Debts} = 10\% \text{ Debentures} + (\text{Sundry Creditors} + \text{Outstanding Expenses}) \\ = ₹ [3,00,000 + (80,000 + 60,000)] = ₹4,40,000$$

7. Calculation of Sales

Here, Operating Profit = 20% on Sales = ₹1,40,000

$$\text{Hence, sales} = \left(\frac{100}{20} \right) \times ₹1,40,000 = ₹7,00,000$$

As the calculated value of Z-score lies between 1.81 and 2.99, which is marked as Grey Area, it is predicted that the company consists of both bankrupt and non-bankrupt elements (i.e., a mixture of (ailed & non-failed elements) and, therefore, requires further investigation to determine its conclusive solvency status.

7. (b) Limitations of Value Chain Analysis

(i) Non availability of Data

Internal data on costs, revenues and assets used for Value Chain Analysis are derived from financial report of a single period. For long term strategic decision-making, changes in cost structures, market prices and capital investments etc. may not readily available.

(ii) Identification of Stages

Identifying stages in an industry's value chain is limited by the ability to locate at least one firm that participates in a specific stage. Breaking a value stage into two or more stages when an outside firm does not compete in these stages is strictly judgmental.

(iii) Ascertainment of Costs of Revenues and Assets

Finding the Costs, Revenues and Assets for each value chain activity poses/gives rise to serious difficulties. There is no specific approach and much depends upon trial and error and experiments methods.

(iv) Identification of Cost Drivers

Isolating Cost Drivers for each value creating activity, identifying Value Chain Linkages across activities and computing supplier and customer profit margins present serious challenges.

(v) Resistance from Employees

Value Chain Analysis is not easily understandable to all employees and hence may face resistance from employees as well as managers.

8. Write a short note on any four of the following

(a) Objectives for using CRM applications

- Objectives of using CRM Applications, defined in the following line:
- To support the customer services
- To increase the effectiveness of direct sales force.
- To support of business to business activities.
- To support of business to consumer activities.
- To manage the call center.
- To operate the In- bound call centre.
- To operate the Out - bound call centre.
- To operate the Full automated (i.e. no CRM involvement, "lights out")

(b) Mention the Phases of DMADV

The Six sigma has two methodologies: (i) DMAIC and (ii) DMADV. The Six Sigma DMADV process (define, measure, analyze, design, verify) is an improvement system used to develop new processes or products at Six Sigma quality levels. It can also be employed if a current process requires more than just incremental improvement. It is also known as DFSS (Design for Six Sigma).

The phases of DMADV:

- Define design goals that are consistent with customer demands and the enterprise strategy.
- Measure and identify CTQs (characteristics that are Critical To Quality), product capabilities, production process capability, and risks.
- Analyze to develop and design alternatives
- Design an improved alternative, best suited per analysis in the previous step
- Verify the design, set up pilot runs, implement the production process and hand it over to the process owner(s).

(c) Systematic Risk VS Unsystematic Risk

Systematic Risk: Systematic risk refers to that part of total risk which causes the movement in individual stock price due to changes in general stock market index. Systematic risk arises out of external and uncontrollable factors. The price of individual

security reflects the fluctuations and changes of general market. Systematic risk refers to that portion of variation in return caused by factors that affect the price of all securities. The effect in systematic risk causes the prices of all individual shares/bonds to move in the same direction. This movement is generally due to the response to economic, social and political changes. The systematic risk cannot be avoided. It relates to economic trends which affect the whole market. When the stock market is bullish, prices of all stocks indicate rising trend and in the bearish market, the prices of all stocks will be falling. The systematic risk cannot be eliminated by diversification of portfolio, because every share is influenced by the general market trend.

Unsystematic Risk: Unsystematic risk is that portion of total risk which results from known and controllable factors. Unsystematic risk refers to that portion of the risk which is caused due to factors unique or related to a firm or industry. The unsystematic risk is the change in the price of stocks due to the factors which are particular to the stock. For example, if excise duty or customs duty on viscose fibre increases, the price of stocks of synthetic yarn industry declines. The unsystematic risk can be eliminated or reduced by diversification of portfolio. Unsystematic risks are those that are unique to a particular company or a particular investment, resulting downward movement in the performance of one company can be offset by an uptrend movement in another and so much of this unsystematic risk can be eliminated through diversification on the part of the shareholders when they hold a portfolio of shares. The systematic risk attached to each of the security is same irrespective of any number of securities in the portfolio. The total risk of portfolio is reduced, with increase in number of stocks, as a result of decrease in the unsystematic risk distributed over number of stocks in the portfolio.

(d) Factors Influencing Price of a Product:

Generally, marketers consider the factors in setting price i.e. Target Customers, Cost of the Product, Competition, The law, Social Responsibility, Market Position of the Firm, Distribution Channel Policy, Price elasticity of Demand, Economic Environment etc. As required by the question we are discussing the following factors:

- (i) Target customers:** Price of product is depend on the capacity of buyers to buy at various prices, in other words, influence of price elasticity of demand will be examined.
- (ii) Cost of the Product:** Pricing is primarily based on, how much it costs to produce and market the product, i.e., both the production and distribution cost.
- (iii) Market Position of the Firm:** The position of the market may also influence the pricing decision of the firm. It is only why the different producers of identical products sell their products at different prices.
- (iv) Distribution Channel Policy:** The prices of products will also depend up the policy regarding distribution channel The longer the channel, the higher would be the distribution costs and consequently higher the prices.
- (v) Price elasticity of Demand:** Price elasticity refers to consequential change in demand due to change in price of the commodity. It is the relative responsiveness to the changes in price. As there an inverse relationship between price and demand for product, the demand will increase with fall in price.

(e) Describe any four Productivity Improvement techniques

- (i) **Value Engineering (VE):** Value Engineering (VE) is the process of improving the value of a product at every stage of the product life cycle. At the development stage, VE improves the value of a product by reducing the cost without reducing quality. At the maturity stage, VE reduces the cost by replacing the costly components (parts) by cheaper components. VE also tries to improve the value and quality of the product. Value is the satisfaction which the consumer gets by using the product. VE tries to give maximum value for a lowest price.
- (ii) **Quality Circles (QC):** The concept of Quality Circles (QC) was introduced in **1960** in **Japan**. QC is a small group of employees who meet regularly to identify, analyse, and solve problems in their department. The QC members advise the management to implement new methods to solve work-related problems. QC increases the productivity.
- (iii) **Financial and Non-Financial Incentives:** The organisation must motivate the employees by providing financial and non-financial incentives. The financial incentives include better wages and salaries, bonus, etc. The non-financial incentives include better working conditions, welfare facilities, worker's participation in management, etc.
- (iv) **Operations Research (OR):** Operations Research (OR) uses mathematical and scientific methods to solve management problems, including problems of productivity. QR technique uses a scientific method to study the alternative courses of actions and to select the best alternative. OR uses techniques such as linear programming, game theory, etc., to make the right decision. Thus, QR helps to improve productivity.
- (v) **Training:** Training is a process of increasing the knowledge and skills of the employees. Training is a must, for new employees and experienced employees. Training increases the efficiency of the employee. Thus, training results in high productivity.
- (vi) **Job Enlargement:** Job Enlargement is a horizontal expansion of a job. It is done to make jobs more interesting and satisfying. It involves increasing the variety of duties. For e.g. a typist may be given the job of accounts writing in addition to the typing work. This technique is used for lower level jobs.
- (vii) **Job Enrichment:** Job Enrichment is a vertical expansion of a job. It makes routine jobs more meaningful and satisfying. It involves providing more challenging tasks, and responsibilities. For e.g. a manager who prepares performance reports is asked to make plans for his department. Job Enrichment technique is used for higher-level jobs.