

**FINAL EXAMINATION
GROUP - IV
(SYLLABUS 2012)**

**SUGGESTED ANSWERS TO QUESTIONS
JUNE - 2017**

Paper-17 : 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 namely
Section – A (20 marks) and Section – B (80 marks)

Section – A

Answer Question 1, which is compulsory and carries 20 marks.

1. (a) The cost function of a firm is given by $C = x^3 - 4x^2 + 7x$. Find at what level of output, the average cost is minimum and what level will it be. 4

- (b) Division A produces three products X, Y and Z and each product has an external market. The following data are available:

Particulars	X	Y	Z
External market price per unit (₹)	48	46	40
Variable cost of production for the Division A (₹)	33	24	28
Labour hours per unit (Division A)	3	4	2
Maximum external sales units	800	500	300

Determine the optimum Product-mix if the total labour hours available in division A is 3800 hours. 4

- (c) Define the following terms in just a sentence:

- (i) Generic Benchmarking
- (ii) Dual Pricing
- (iii) Quality Circle
- (iv) TQM

4

- (d) List the benefits of risk mapping. 4

- (e) Briefly state the issues affecting the development of E-Commerce. 4

Suggested Answer_Syl 2012_Jun 2017_Paper 17

Answer:

1. (a) Total Cost = $x^3 - 4x^2 + 7x$

$$\text{Average Cost} = \frac{TC}{x} = x^2 - 4x + 7$$

In order that the average cost is minimum,

$$\frac{dy}{dx} = 0 \text{ and the value } \frac{d^2y}{dx^2} \text{ should be positive.}$$

$$\frac{dy}{dx} = 2x - 4 = 0 \text{ or, } x - 2 = 0 \text{ or, } x = 2$$

$$\frac{d^2y}{dx^2} = 2, \text{ which is positive, so the function will have minimum values.}$$

Minimum Average Cost

$$\begin{aligned} &= x^2 - 4x + 7 \\ &= 4 - (4 \times 2) + 7 \\ &= 3 \end{aligned}$$

- (b) Labour hours required to meet the potential external demand
 = $(800 \times 3) + (500 \times 4) + (300 \times 2) = 5,000$ hours.

Contribution per unit:

Sl.	Particulars	X	Y	Z
i	Selling price per unit (₹)	48	46	40
ii	Variable cost per unit (₹)	33	24	28
iii	Contribution per unit (i - ii)	15	22	12
iv	Labour hours per unit	3	4	2
v	Contribution per labour hr. (₹) iii ÷ iv	5	5.50	6
	Ranking	III	II	I

When labour hour is limited to 3,800 hours:

$$\begin{aligned} \text{First we decide to make 300 units of Z @2 hours} &= 600 \text{ hours} \\ \text{Second we make 500 units of Y @4 hours} &= 2,000 \text{ hours} \\ \text{Third, for the balance time X would be produces @ 3hrs/unit} &= \underline{1,200 \text{ hours}} \\ &= 3,800 \text{ hours.} \end{aligned}$$

Therefore optimum product mix would be:

$$X = 400 \text{ units, } Y = 500 \text{ units and } Z = 300 \text{ units.}$$

- (c) (i) **Generic Benchmarking** is an application of functional process benchmarking that compares a particular business function at two or more organizations selected without regard to their industry.
- (ii) **Dual pricing** is a system in which there are two prices for the same commodity at the same time one is controlled price fixed by the Government and other is free market price, based on the conditions of demand and supply.

Suggested Answer_Syl 2012_Jun 2017_Paper 17

- (iii) **Quality Circles** are small group of employees who meet regularly to indentify, analyze and solve problems in their department.
- (iv) **TQM** or Total Quality Management is an approach to improving the competitiveness, effectiveness and flexibility of the whole organization.

(d) The following are the 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 client's risk financing and insurance programs, through the development of effective / optimal retention levels and scope of coverage etc.

(e) Issues affecting the development of E-Commerce.

There are a number of issues affecting e-commerce. Some of them are:

- (i) Taxation
- (ii) Security
- (iii) Privacy
- (iv) Profitability
- (v) Content
- (vi) Participation in new international standards development

Section – B (80 marks)

Answer any five questions out of the seven questions. Each question carries 16 marks.

2. (a) **Define "Transfer Pricing". What any Transfer Pricing System should aim to?** **2+4**
- (b) **Unique Industries Ltd. has two divisions, A and B. Division A manufactures Product X which it sells in outside market as well as to Division B which processes it to**

Suggested Answer_Syl 2012_Jun 2017_Paper 17

manufacture Z. The manager of Division B has expressed the opinion that the transfer price is too high and that it should be lowered down.

The two divisional managers are about to enter into discussion to resolve the conflict. The following information is collected before the discussion.

Division A has been selling 40000 units to outsiders and 10000 units to Division B, all at ₹ 20 per unit. It is not anticipated that the demand will change. The variable cost is ₹ 12 per unit and the fixed costs are ₹ 2 lakh.

The manager of Division A anticipates that Division B will want a transfer price of ₹ 18. If he does not sell to Division B ₹ 35,000 of fixed costs and ₹ 1,50,000 of assets out of total assets of ₹ 8,00,000 can be avoided. The manager of Division A would have no control over the proceeds from the sale of the assets and is judged primarily on his rate of return.

- (i) Should the manager of Division A transfer its products at ₹ 18 to Division B?
(ii) What is the lowest price that Division A should accept? Support your decision.

4+6

Answer:

2. (a) Large businesses today are usually organized into different divisions for effective management control. In case of large multi-product companies, each of the divisions may be a large manufacturing unit in their own right. When a company is organized into more than one division and if one division supplies its finished output as an input to another division, there arises the question of transfer pricing. Transfer pricing is the price at which the supplying division prices its transfer of output to the user division. It is different from the normal price in that both the divisions are a part of same organization and therefore there is only an internal transfer and not a sale.

Any Transfer Pricing System should aim to

- Ensure that resources are allocated in an optimal manner
- Promote goal congruence
- Motivate divisional managers
- Facilitate the assessment of management performance
- Retain divisional autonomy.

- (b) (i) **Comparative statement of Profit of Division A:**

Particulars	Alternative situations		
	Sell at ₹ 20	Transfer at ₹ 18	Do not transfer
Sales revenue:	8,00,000	8,00,000	8,00,000
Market sales (40,000 units × ₹ 20)			
Transfer to division B (10,000 units)	2,00,000	1,80,000	-
Total (P)	10,00,000	9,80,000	8,00,000
Variable cost ₹ 12 per unit	6,00,000	6,00,000	4,80,000
Fixed costs	2,00,000	2,00,000	1,65,000

Suggested Answer_Syl 2012_Jun 2017_Paper 17

Total (Q)	8,00,000	8,00,000	6,45,000
Total profit (P-Q)	2,00,000	1,80,000	1,55,000
Total assets	8,00,000	8,00,000	6,50,000
ROI (percentage)	25%	22.50%	23.85 %

Decision: The manager of division A should not agree to sell at ₹ 18 per unit as it lowers down its rate of return.

(ii) The lowest transfer price acceptable to division A is one, which maintains its rate of return of 23.85% (the ROI without selling to division B):

$$\begin{aligned} \text{ROI} &= \frac{\text{Total sales revenue} - \text{Total cost}}{\text{Total assets}} \\ &= \frac{8,00,000 + 10,000\text{TP} - 8,00,000}{8,00,000} = 0.2385 \end{aligned}$$

Where, TP is the transfer price per unit.

Therefore,

$$10,000 \text{ TP} = 1,90,800$$

$$\text{Transfer Price} = ₹ 19.08$$

The lowest transfer price acceptable to division A is ₹ 19.08 per unit.

3. (a) A manufacturing company "SB Products" sells its output at ₹ 1,100 per unit. Due to competition, its competitors are likely to reduce price by 15%. SB Products want to respond aggressively by cutting price by 20% and expects that the present volume of 150000 units p.a. will increase to 200000. SB Products want to earn a 10% target profit on sales. Based on detailed value engineering, the comparative position is given below:

Particulars	Existing (₹)	Target (₹)
Direct material cost per unit	452	437
Direct manufacturing labour per unit	65	60
Direct machinery costs per unit	80	70
Direct manufacturing costs per unit	597	567
Manufacturing overheads:		
No. of orders (₹ 80 per order)	22,500	21,250
Testing hours (₹ 2 per hour)	4,500,000	3,000,000
Units reworked (₹ 100 per unit)	12,000	13,000

Manufacturing overheads are allocated using relevant cost drivers. Other operating costs per unit for the expected volumes are estimated as follows:

Research and Design	₹ 50
Marketing and customer service	₹ 130
	₹ 180

Suggested Answer_Syl 2012_Jun 2017_Paper 17

Required:

- (i) Calculate target costs per unit and target costs for the proposed volume showing break-up of different elements.
- (ii) Prepare target product profitability statement. 4+4

- (b) Identify Key Roles for successful implementation of Six Sigma. Explain the implication of Six Sigma Process. 5+3

Answer:

3. (a) (i)

Target selling price : ₹ 1,100 less 20%	₹ 880
Less: Target profit margin (10%)	₹ 88
Target costs per unit	₹ 792

The break-up of ₹ 792 per unit is as follows:

Target Costs per unit

Particulars	Per unit (₹)	
Direct materials		437.00
Direct manufacturing labour		60.00
Direct machining costs		70.00
Direct manufacturing costs		567.00
Add: Manufacturing overheads:		
Ordering and receiving $(21,250 \times ₹ 80) \div 2,00,000$	8.50	
Testing and inspection $(30,00,000 \times ₹ 2) \div 2,00,000$	30.00	
Rework $(13,000 \times ₹ 100) \div 2,00,000$	6.50	45.00
Total manufacturing costs		612.00
Other operating costs:		
Research and Design	50.00	
Marketing and Customer service	130.00	180.00
Full Product Costs		792.00

(ii) **Target Product Profitability:**

Particulars	Per unit (₹)	2,00,000 units (₹)
1. Sales	880	17,60,00,000
2. Costs of goods sold:		
Direct materials	437	8,74,00,000
Direct labour	60	1,20,00,000
Direct machining costs	70	1,40,00,000
	567	11,34,00,000
Manufacturing overheads	45	90,00,000
	612	12,24,00,000

Suggested Answer_Syl 2012_Jun 2017_Paper 17

3. Gross margin (1-2)	268	5,36,00,000
4. Operating costs:		
Research and Design	50	1,00,00,000
Marketing and customer service	130	2,60,00,000
	180	3,60,00,000
5. Operating profit (3-4)	88	1,76,00,000

(b) Six Sigma identifies several key roles for its successful implementation:

- Executive Leadership includes the CEO and other members of top management who are responsible for setting up a vision for Six Sigma implementation. They also empower the other role holders with the freedom and resources to explore new ideas for breakthrough improvements.
- Champions take responsibility for Six Sigma implementation across the organization in an integrated manner. The Executive Leadership draws them from upper management. Champions also act as mentors to Black Belts.
- Master Black Belts, identified by champions, act as in-house coaches on Six Sigma. They devote 100% of their time to Six Sigma. They assist champions and guide Black Belts and Green Belts. Apart from statistical tasks, they spend their time on ensuring consistent application of Six Sigma across various functions and departments.
- Black Belts operate under Master Black Belts to apply Six Sigma methodology to specific projects. They devote 100% of their time to Six Sigma. They primarily focus on Six Sigma project execution, whereas Champions and Master Black Belts focus on identifying projects/functions for Six Sigma.
- Green Belts are the employees who take up Six Sigma implementation along with their other job responsibilities, operating under the guidance of Black Belts.

The term "six sigma process" comes from the notion that if one has six standard deviations between the process mean and the nearest specification limit, practically no items will fail to meet specifications. This is based on the calculation method employed in process capability studies which measure the number of standard deviations between the process mean and the nearest specification limit in sigma units, represented by the Greek letter σ (sigma).

4. (a) MJ Ltd. provides you following information. In a purely competitive market, 10000 Tablets can be manufactured and sold and a certain profit is generated. It is estimated that 2000 Tablets need be manufactured and sold in monopoly market to earn the same profit. Profit under both the conditions is targeted at ₹ 2,00,000. The variable cost per Tablet is ₹ 100 and the total fixed cost is ₹ 37,000.

As a Management Accountant you are required to find out the unit selling price both under monopoly and competitive conditions. **10**

(b) What is Game Theory? Discuss briefly its assumptions.

6

Suggested Answer_Syl 2012_Jun 2017_Paper 17

Answer:

4. (a) Under Monopoly Market Conditions:

Suppose 'x' is the selling price per unit	
Sale	= 2,000 x
Variable cost	= 2,000 × ₹100 = ₹ 2,00,000
Fixed cost	= ₹ 37,000
Desired profit	= ₹ 2,00,000

Sales - Variable cost = Fixed cost + Desired profit

$$\text{or, } 2,000x - 2,00,000 = 37,000 + 2,00,000$$

$$\text{or, } x = ₹ (4,37,000 \div 2,000)$$

$$\text{or, } x = ₹ 218.50$$

∴ Selling price per unit under Monopoly = ₹ 218.50

Under Competitive Conditions:

Suppose 'y' is the selling price per unit	
Sale	= 10,000 y
Variable cost	= 10,000 × ₹100 = ₹ 10,00,000
Fixed cost	= ₹ 37,000
Desired profit	= ₹ 2,00,000

Sales - Variable cost = Fixed cost + Desired profit

$$\text{or } 10,000y - 10,00,000 = 37,000 + 2,00,000$$

$$\text{or, } y = (12,37,000 \div 10,000)$$

$$\text{or, } y = ₹ 123.70$$

∴ Selling price per unit under Competitive condition = ₹ 123.70

Hence:

- Under monopolistic conditions selling price per unit is ₹ 218.50.
- Under competitive conditions selling price per unit is ₹ 123.70.

(b) The Game Theory is nothing but the mathematical theory of conflicting situation. The theory is to analyze the rational behaviour of contestants. The game theory may be defined as a kind of knowledge that deals to make decision, while two or more parties are involved under conditions of conflict and competitions,

Assumptions of the game theory are as follows:

- (i) Each players has a finite set of possible courses of action or strategies
- (ii) Players act rationally
- (iii) Players attempt to maximize gain and minimize losses.
- (iv) All types of relevant information's are known in advance.
- (v) Players to adopt individual decisions without any direct communication.

Suggested Answer_Syl 2012_Jun 2017_Paper 17

(vi) The payoff is fixed and known in advance.

(vii) Player A's gains are player B's losses and vice versa.

5. (a) A company is considering a Cost saving Project. This involves purchasing a machine costing ₹ 7,000, which will result in annual savings on wage costs of ₹ 1,000 and on material costs of ₹ 400. The following forecasts are made of the rates of inflation each year for the next 5 years:

Wages Cost	10%
Material Cost	5%
General prices	6%

The cost of capital of the company, in monetary terms is 15%.

Evaluate the projects, assuming that the machine has a life of 5 years and no scrap value.

Given: the Dcf @ 15%:

Year	1	2	3	4	5
Dcf @ 15%	0.870	0.756	0.658	0.572	0.497

8

- (b) 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
Profit before tax (₹)	3,00,000
Tax rate	40%
WACC (Weighted Average Cost of Capital)	13%

8

Answer:

5. (a) Calculation of net present value:

Year	Labour Cost Saving (₹)	Material Cost Saving (₹)	Total Saving (₹)	Dcf @ 15%	Present Value (₹)
1	$1,000 \times 1.1 = 1,100$	$400 \times 1.05 = 420$	1,520	0.870	1,332
2	$1,000 \times (1.1)^2 = 1,210$	$400 \times (1.05)^2 = 441$	1,651	0.756	1,248
3	$1,000 \times (1.1)^3 = 1,331$	$400 \times (1.05)^3 = 463$	1,794	0.658	1,180
4	$1,000 \times (1.1)^4 = 1,464$	$400 \times (1.05)^4 = 486$	1,950	0.572	1,115
5	$1,000 \times (1.1)^5 = 1,610$	$400 \times (1.05)^5 = 510$	2,120	0.497	1,053
	PV of total savings				5,917
	(-) Initial Cash Outflow				7,000

Suggested Answer_Syl 2012_Jun 2017_Paper 17

NPV	(1081)
------------	--------

Since NPV is negative, therefore the project is not acceptable.

(b) Economic Value Added (EVA)

= NOPAT - Capital Cost

= NOPAT - (WACC x Capital Employed)

Where,

NOPAT is Net Operating Profit After Tax and

WACC is Weighted Average Cost of Capital

Working Note - 1: Calculation of NOPAT

	₹
Profit before tax	3,00,000
Add: Interest Expense	60,000
Less: Non Operating Income	10,000
Operating EBIT	3,50,000
Less: Economic Taxes @ 40%	1,40,000
NOPAT	2,10,000

Working Note-2:

	₹
Equity Share Capital	5,00,000
Reserves & Surplus	6,00,000
13% Preference Capital	2,00,000
20% Debentures	3,00,000
Total	16,00,000
Less: Non-operating Asset	1,00,000
Capital Employed	15,00,000

EVA = ₹ 2,10,000 - (₹15,00,000 × 13%) = ₹ 2,10,000 - ₹1,95,000 = ₹15,000.

6. (a) Discuss about

(i) reduction of risk through diversification, and

(ii) benefits of diversification in the context of Enterprise Risk Management. 4+4

(b) Identify symptoms indicating industrial sickness. 8

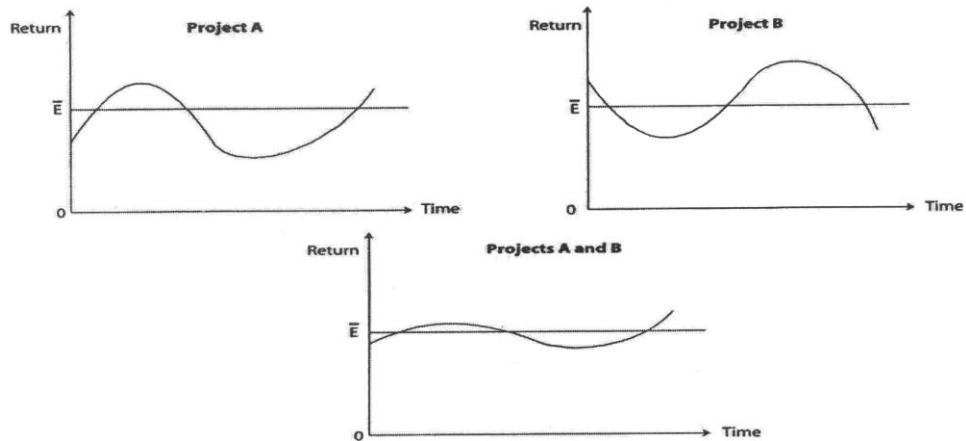
Answer:

6. (a) (i) The important principle to consider that in an efficient capital market, investors should not hold all their eggs in one basket; they should hold a well-diversified portfolio. In order to diversify risk for the creation of an efficient portfolio (one that allows the firm to achieve the maximum return for a given level of risk or to

Suggested Answer_Syl 2012_Jun 2017_Paper 17

minimize risk for a given level of return), the concept of correlation must be understood. Correlation is a statistical measure that indicates the relationship, if any, between series of numbers representing anything from cash flows to test data.

In order to diversify project risk and thereby reduce the firm's overall risk, the projects that are best combined or added to the existing portfolio of projects are those that have a negative (or low positive) correlation with existing projects.



By combining negatively correlated projects, the overall variability of returns or risk can be reduced. It shows that a portfolio containing the negatively correlated projects A and B, both having the same expected return, E , also has the return E , but less risk (i.e., less variability of return) than either of the projects taken separately. This type of risk is sometimes described as diversifiable or alpha risk.

(ii) Benefits of Diversification:

The gains in risk reduction from portfolio diversification depend inversely upon the extent to which the returns on securities in a portfolio are positively correlated. Ideally the securities should display negative correlation. This implies that if a pair of securities has a negative correlation of returns, then in circumstances where one of the securities is performing badly the other is likely to be doing well and vice - versa in reverse circumstances. Therefore the 'average' return on holding the two securities is likely to be much 'safer' than investing in one of them alone.

(b) Just as diseases are identified by symptoms, industrial sickness can also be identified by certain symptoms. These symptoms act as leading indicators of sickness, and if immediate remedial actions are not taken, the sickness will grow to the extent that the organization will find its natural death. These symptoms may be as follows:

- Continuous reduction in turnover.
- Piling up of inventory,

Suggested Answer_Syl 2012_Jun 2017_Paper 17

- Continuous reduction of net profit to sales ratio.
- Short term borrowings at high interest rate,
- Continuous cash losses leading to erosion of tangible net worth,
- Default in payment of interest on borrowings and default in repayment of term loan installments.
- The 'sundry debtors' as well as the 'sundry creditors' keep growing and reaching a disproportionately high level.
- Approaching the banker for temporary overdraft at frequent intervals.
- High turnover of personnel, especially at senior levels,
- Change in accounting procedure with to view to window dressing.
- Delay in finalization of accounts

7. (a) You have been given the following pay-off matrix.

State of Nature	Probability	Do not expand (₹)	Expand 200 units (₹)	Expand 400 units (₹)
High Demand	0.4	2,500	3,500	5,000
Medium Demand	0.4	2,500	3,500	2,500
Low Demand	0.2	2,500	1,500	1,000

What should be the decision, if we use Expected Monetary Value Criterion? 8

(b) Explain what do you mean by the term Target Pricing. Discuss briefly the manner in which Target Pricing is determined. 2+6

Answer:

7. (a)

State of nature	High Demand	Medium Demand	Low Demand
Probability	0.4	0.4	0.2
Course of Action			
Do not Expand (A1)	2,500	2,500	2,500
Expand 200 units(A2)	3,500	3,500	1,500
Expand 400 units (A3)	5,000	2,500	1,000

Expected Monetary Value:

Course of Action	Calculation	EMV
A1	$(0.4 \times 2,500) + (0.4 \times 2,500) + (0.2 \times 2,500)$	2,500
A2	$(0.4 \times 3,500) + (0.4 \times 3,500) + (0.2 \times 1,500)$	3,100
A3	$(0.4 \times 5,000) + (0.4 \times 2,500) + (0.2 \times 1,000)$	3,200

Decision: As the EMV of A3 is highest, we should select A3 i.e. expand 400 units.

(b) Target Pricing is a refined version of cost-plus pricing. Target pricing is also known as Rate of Return pricing. When due to certain reasons, the firm has to revise its prices it needs to ensure that the prices so revised would allow it to maintain either:

Suggested Answer_Syl 2012_Jun 2017_Paper 17

1. A fixed percentage mark-up over cost ;
2. Profit as a fixed percentage of total sales; or
3. A fixed return on existing investments.

Target pricing is determined in the following, manner:-

Step I: The firm specifies an expected rate of return on investment (expressed as earnings divided by capital invested).

Step II: To determine a normal rate' of output by the firm and then to estimate the 'full cost' on the basis of this normal rate of production.

Step III: To estimate 'capital turnover' ratio (expressed as invested capital divided by full cost). Economic efficiency of the firm- impact analysis on Performance

Step IV: To multiply capital turnover ratio with the expected rate of return on investment (as found in Step 1). This will give us the mark-up percentage.

Step V: To compute Rate of Return (ROR) price, we add up the full cost and the mark-up. i.e., $P = \text{Full Cost} + \text{Mark-up}$.

8. Write short notes on any four of the following:

4x4

- (a) Risk Management
- (b) Total Productivity Management (TPM)
- (c) Data Warehousing
- (d) Requirements for the Balanced Scorecard Implementation Process and the benefits of adopting Balance Scorecard approach to Performance management.
- (e) Factors influencing the pricing of a product.

Answer:

8. (a) Risk management is the process of measuring or assessing risk and developing strategies to manage it. Risk management is a systematic approach in identifying, analyzing and controlling areas or events with a potential for causing unwanted change.

Risk management process refers to the process of measuring or assessing risk and then developing strategies to manage risk.

In the risk management, the following steps are taken up to minimize the risk:

Step 1: Risk Identification and Assessment

This step involves event identification and data collection process. The institution has

Suggested Answer_Syl 2012_Jun 2017_Paper 17

to put in place a system of capturing information either through key risk drivers (KRIs) or through a rating system.

Step 2: Risk Quantification and Measurement

The next step is to Quantify and Measure risks - this means Rate risks according to probability and impact. Various standard tools are used by financial institutions to measure risk and understand their impact in terms of capital or its importance to the organization through a scoring technique.

Step 3: Risk Analysis, Monitor and Reporting

The next step is risk analysis, monitoring and reporting. This will help one to get the big picture and decided on the approach to risk management.

Step 4: Capital Allocation

Risk Analysis, Monitoring & Reporting sends information lo the top management of the organization to take strategic decisions. Capital allocation plays key role in management decision making.

Step 5: Risk Management and Mitigation

After the above step, the last step is to make strategic decisions to manage the risk in order to mitigate the risk.

- (b)** Total Productivity Management (TPM) is a management process developed for improving productivity by making processes more reliable and less wasteful. TPM is an extension of TQM (Total Quality Management). The objective of TPM is to maintain the plant or equipment in good condition without interfering with the daily process. To achieve this objective, preventive and predictive maintenance is required. By following the philosophy of TPM we can minimize the unexpected failure of the equipment.

The Steps to start TPM are as under:

- Identity the key people
- Management should learn the philosophy.
- Management must promote the philosophy.
- Training for all the employees.
- Identity the areas where improvement are needed.
- Make an implementation plan.
- Form an autonomous group

- (c)** Data warehousing is the science of storing data for the purpose of meaningful future analysis. It is a science (not much art involved) and it deals with the mechanism of electronically storing and retrieving data so that some analysis can be performed on that data to corroborate support to a business decision or to predict a business

Suggested Answer_Syl 2012_Jun 2017_Paper 17

outcome. Data warehousing technologies provide historical, current and predictive views of business operations by analyzing the present and historical business data. Data analysis is often done using visualization techniques that turn complex data into images that tells compelling story. Raw data by this process of analysis help the management to take right decisions.

(d) The requirements for the Balanced Scorecard implementation process are:

- (1) Agreeing a set of performance measures to be agreed per perspective
- (2) Agreeing performance targets for each measure
- (3) Recording actual performance for each performance measure
- (4) Regularly reporting and acting on any performance deviation

The benefits of adopting a Balanced Scorecard approach to performance management:

- (1) It creates a longer term strategic view of performance rather than a myopic short term view.
- (2) It broadens the view of divisional managers as to what represents good performance away from a solely financially orientated view.
- (3) Organizations can develop performance measures that are explicitly aligned to the corporate strategy and in support thereof.
- (4) It considers customer viewpoint which is critical in any business.
- (5) It helps to promote accountability as each performance measure could be the responsibility of a nominated individual or individuals.

(e) Factors influencing price of a product

Generally, marketers consider the following factors while setting price:

- (i) **Target customers:** Price of product depends 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) **Competition:** Severe competition may indicate a lower price than when there is monopoly or little competition.
- (iv) **The law:** Government authorities place numerous restrictions on pricing activities.
- (v) **Social responsibility:** Pricing affects many parties, including employees, shareholders and the public at large. These should be considered in pricing.
- (vi) **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.

Suggested Answer_Syl 2012_Jun 2017_Paper 17

- (vii) **Distribution channel policy:** The prices of products will also depend upon the policy regarding distribution channel. The longer the channel, the higher would be the distribution costs and consequently higher the prices.
- (viii) **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.
- (ix) **Economic environment:** In recession, prices are reduced to a sizeable extent to maintain the level of turnover. On the other hand, prices are charged higher in boom period to cover the increasing cost of production and distribution.