P17 - Strategic Performance Management

Test Paper—IV/17/SPM/2012/T-1

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

Section A : Performance Management [60 marks]

Question 1

(a) Describe about the concept of Performance

(b) The role of Management Accountant in Competitive Intelligence.

(c) Read the following caselet and answer the following questions:
Food Corporation of India (FCI) was established under the Food Corporation of India Act 1964 for the purpose of trading in food grains and other foodstuffs. The Act extended to the whole of India. The Corporation acts as a body corporate. The general superintendence, direction and management of the affairs and business of the Corporation vests in a board of directors, which exercises all such powers and does all such acts and things as may be exercised or performed by the Corporation under the FCI Act.
FCI performs the major functions of procurement, storage preservation, movement, transportation, distribution and sale of food grains and meets the requirements of Public Distribution System (PDS) in the country. In other words, it handles or manages the entire supply chain in food grains distribution in India. It acts as a nodal agency of the central government based on ethical business principles having regard to the interest of the producers (farmers) and consumers.

Supply chain management of food grains by FCI is actually a joint responsibility of the Central Government, the state governments and the union territories involved in the actual implementation of PDS. Functions of the centre are to procure, store and transport. The implementation and administration of PDS is the responsibility of the state government and the UT administration. They lift these commodities from central godowns mills and distribute them to consumers through the massive network of fair price shops. Monitoring, inspection and enforcement of legal provisions is also done by the state government and the UT administration.

The network of fair price shops (FPS) has been expanding over the years, adding to the supply chain. During the last decade, the number of fair price shops had increased from 3.61 lakh (1990) to 4.59 lakh (2004) as indicated in the following:

Increase in No. of Fair Price Shops

Year	No. of FPS (in lakhs)
1985	3.19
1987	3.38
1990	3.61
2004	4.59

An efficient supply chain management requires the establishment of a close link between production, procurement, transportation, storage and distribution of selected commodities. Infrastructure needs to be strengthened, particularly in the backward, remote and inaccessible areas. The system also needs to be much improved to make it cost-effective. There is need for buffer stock in such a system. But, buffer stock can be reduced by timely procurement, transportation and storage.

This would reduce the carrying costs of the goods meant for distribution. The costs can also be reduced by increasing efficiency in the distribution network.

Leakages during the movement of food grains, etc., need to be plugged. Proper and timely checks

of the fair price shops, godown, etc., can also lower the cost of PDS operations and the total supply chain management. FCI has to ultimately ensure a cost-effective supply chain and, for this, appropriate modalities have to be worked out.

(i) Under which act FCI was established?

(ii) Why did the FCI adopt the Supply Chain Management?

(iii) What were results coming out after adopting the Supply Chain Management?

(d) Describe about the components of Supply Chain Management. **[2+3+ (1+1+1) +2 = 10]**

Question 2

(a) What is Divisional Profitability and objective of Divisional Profitability? What is the Investment centre?

(b) "The Performance Appraisal Process is not an annual event it is a never ending process, there is no start and no end …. just an ongoing evolution of performance."- Evaluate this Statement.

(c) A company earns a profit of ₹ 3,00,000 p.a. after meeting its interest liability of ₹ 1,20,000 on 12% Debentures. The tax rate is 50%. The number of equity shares of ₹ 10 each are 80,000 and retained earnings amount to ₹ 12,00,000. The company proposes to take up an expansion scheme for which a sum of ₹ 4,00,000 is required. It is an anticipated that after expansion, the company will be able to achieve the same return on investment as at present. The funds required for an expansion can be raised either through debt at the rate of 12% or by issuing equity shares at par.
Required to compute the ROI

(d) A company has two divisions one producing an intermediate for which there is external market and another using this intermediate in finished product and it sells in the market. Each unit of finished product uses one unit of intermediate. The sales quantity is sensitive to the price charged and the selling division has developed the following sales schedule:

Selling price per unit (₹)	500	450	400	350	300	250
Sales units (No)	1,000	2,000	3,000	4,000	5,000	6,000

Cost details are as:

Particulars	**Production Division**	**Selling Division**
Variable Cost Per unit (₹)	55	35
Fixed Cost Per annum (₹)	3,00,000	4,50,000

The transfer price is ₹ 175 based on the full cost basis.

(i) Prepare a statement of profit for each division and the company as a whole.

(ii) Determine the selling price that will maximize the selling division profit and the price that will maximize the company's profit.

(iii) Determine the which transfer price policy will maximize the overall company's profit.

[(1.5+1.5+1.5) +4.5+2+(2+1+1) = 15]

Question 3

(a) B manufacturing company sells its product at ₹1,000 per unit. Due to competition, its competitors are likely to reduce price by 15%. Bee wants to respond aggressively by cutting price by 20% and

expects that the present volume of 1,50,000 units p.a. will increase to 2,00,000. Bee wants 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	400	385
Direct manufacturing labour per unit	55	50
Direct machinery costs per unit	70	60
Direct manufacturing costs per unit	525	495
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 volume are estimated as follows:

Research	₹30
Marketing	₹70
Advertisement	₹60
Design	₹ 20
	180

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. **[2+1 = 3]**

(b) S & C Ltd. is about to replace its rapidly deteriorating boiler equipment. Three types of boiler system are being considered as a suitable replacement:

A. Coal-fired, **B.** Gas-fired, and **C**. Oil-fired.

The associated costs are as follows:

(₹ in '000)

Boiler system	**A**	**B**	**C**
Cost of boiler (including installation and commissioning)	550	740	640
Annual Fuel cost	270	230	250
Annual operating labour costs	80	-	-
Annual maintenance cost	40	30	30
Annual Electricity cost	10	10	10
Total Operating Cost	400	270	290

The new boiler system is expected to last at least 10 years. The Company has an opportunity cost of finance of 10% per year. Which system should be chosen? **[3]**

(c) Does Benchmarking tantamount to Industrial Espionage? **[2]**

(d) Read the following caselet and answer the following questions:

The value chain framework is a method for breaking down the chain-from basic raw materials to end-use customers--into strategically relevant activities in order to understand the behaviour of costs and the sources of differentiation. A firm is typically only one part of the larger set of activities in the value delivery system. Suppliers not only produce and deliver inputs used in a firm's value activities, but they importantly influence the firm's cost or differentiation position as well. Similarly, distribution channels have a significant impact on firm's value activities.

Therefore, gaining and sustaining a competitive advantage requires that a firm understands the entire value delivery system, not just the portion of the value chain in which it participates. Suppliers and distribution channels have profit margins that are important to identify in understanding a firm's cost or differentiation positioning, because end-use customers ultimately pay for all the profit margins throughout the value chain. Thus, value chain analysis, in contrast to the value added analysis, takes all opportunities for exploiting linkages with firm's suppliers (such opportunities may be dramatically important to the firm) and firm's customers.

The value chain analysis can be explained taking Paper Products Industry as an example (Shank and Govindarajan). This is shown in Figure

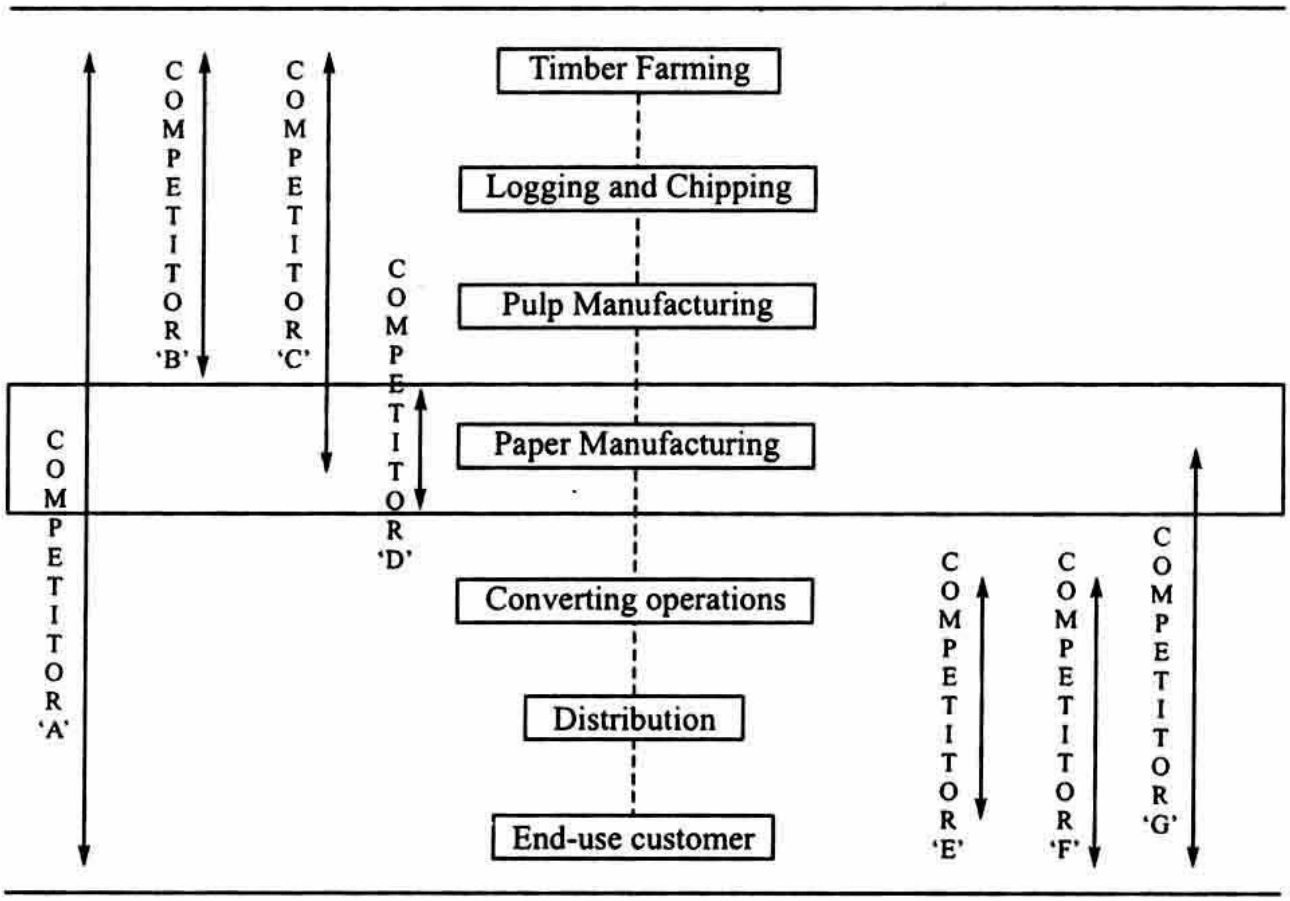


Fig: Value chain in the Paper Products Industry.

The distinct value activities (such as timber, logging, pulp mills, paper mills and conversion plants) are the building blocks by which the paper industry creates a product of value to buyers. It is possible to

measure the economic value created at each stage by identifying the costs, revenues and assets for each activity. Each firm in the figure must construct a value chain analysis for the total paper industry (with the possibilities to integrate forward or backward in case of firms B, C, D, E, F and G) breaking the total value in the chain into its fundamental sources of economic value. This has potential strategic implications for every competitor in the paper products industry. These firms must ask strategic questions for value activity relating to:

- Make versus buy, and
- Forward and backward integration.

They should quantify and assess 'supplier power' and 'buyer power' and exploit linkages with suppliers and buyers.

The Methodology

Porter (1985) explained the steps involved in strategic cost analysis. Shank and Govindarajan (1989) developed them further. In short, it involves the following three major steps:

- Define the firm's value chain and assign costs and assets to value activities;
- Investigate the cost drivers regulating each value activity; and
- Examine possibilities to build sustainable competitive advantage, either through controlling cost drivers or by reconfiguring the value chain.

We explain the above steps in somewhat greater detail.

In identifying the value chain, the main thrust would be to gain competitive advantage, as competitive advantage cannot be meaningfully examined at the level of the industry as a whole. As stated earlier, a value disaggregates the firm into its distinct strategic activities. These activities are the building blocks by which a firm creates a product valuable to buyers. Activities should be isolated and separated if they satisfy any or all of the following conditions:

(a) They represent a significant percentage of operating costs;

(b) The cost behaviour of the activities or the cost drivers are different;

(c) They are performed by competitors in different ways; and

(d) They have a high potential of being able to create differentiation.

Each value activity incurs costs, generates revenues and ties up assets in the process. After identifying the value chain, operating costs, revenues and assets must be assigned to individual value activities.

The second step is to diagnose the cost drivers *(a cost driver is* a cost allocation base) that explain variations in costs in each value activity. In conventional cost and management accounting, cost is primarily a function of only one cost driver-output volume. In the value chain approach, multiple cost drivers are used for cost allocation and they differ across value activities. Recently, much interest has arisen over activity-based costing (ABC). The *ABC analysis* is largely a framework to operationalize complexity in the system.

The third step relates to developing sustainable competitive advantage about which we have made some observations earlier. Once a firm has identified the industry's value chain and diagnosed the cost drivers of each value activity, sustainable competitive advantage can be gained either by controlling cost drivers or by configuring the value chain. In achieving this goal, the key questions in respect of each value activity would be:

(a) Can cost in this activity be reduced keeping value (revenue) constant?

(b) Can value (revenue) be increased in the activity, keeping costs constant?

By scientific analysis of costs, revenues and assets in each activity, the firm can achieve both low cost and differentiation. One way to accomplish this goal is to compare the value chain of the firm with

the value chains of one or more of its major competitors and then identify the actions needed to manage the firm's value chain better than their competitors. As we have mentioned earlier, the very process of performing the value chain analysis can be quite instructive. Such an exercise forces each manager to ask: "How does my activity add value to the customers who use my product (or service)?"

(i) What are the steps involved in paper industry's value chain analysis?
(ii)" In identifying the value chain, the main thrust would be to gain competitive advantage, as competitive advantage cannot be meaningfully examined at the level of the industry as a whole" – explain with the conditions in the context of value chain analysis. **[1+1 = 2]**

Question 4

(a) (i) What is the meaning of Saddle Point.

(ii) In an election campaign, the strategies adopted by the ruling and opposition party along with payoffs (ruling party's % share in votes polled) are given below:

	Opposition strategies		
Ruling Party's Strategies	Campaign one day in each city	Campaign two days in large towns	Spend two days in large rural sectors
Campaign one day in each city	55	40	35
Campaign two days in large towns	70	70	55
Spend two days in large rural sectors	75	55	65

Assume a zero sum game. Final optimum strategies for both parties and expected payoff to ruling party. **[2+3=5]**

(b) A person has two independent investments A and B available to him, but he can undertake only one at a time due to certain constraints. He can choose A first then stop, or if A is successful then take B or vice versa. The probability of success of A is 0.6, while for B it is 0.4. Both investments require an initial capital outlay of ₹ 10,000 and both return nothing if the venture is unsuccessful. Successful completion of A will return ₹ 20,000 (over cost) and successful completion of B will return ₹ 24,000 (over cost). Draw decision tree and determine the best strategy. **[2.5]**

(c) Pay offs of three acts A, B and C and states of nature X, Y and Z are given below :

Payoff (in ₹)

Acts → / State of Nature ↓	**A**	**B**	**C**
X	–20	–50	100
Y	200	–100	–50
Z	300	500	200

The probabilities of the states of nature are 0.3, 0.4and 0.3.
Calculate the Expected Monetary value (EMV), for the above data and select the best act. Also find the EVPI. **[2.5]**

Question 5

(a) What are Normal Profit and Super Normal Profit?

(b) What are the objectives of a Pricing Policy?

(c) (i) A radio manufacturer produces 'x' sets per week at total cost of ₹ $x^2 + 78x + 2500$. He is a monopolist and the demand function for his product is $x = \frac{(600 - P)}{8}$, when the price is 'p' per set show that maximum net revenue is obtained when 29 sets are produced per week what is the monopoly price.

(ii) 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 profit is maximum. **[2.5+1.5+(2+2) = 8]**

Question 6.

How to measure the Traditional Performance? **[7]**

Section B : IT and Econometric tool in Performance Management [20 marks]

Question 7

(a) Write a short note of Data Availability, Data Envelopment Analysis, Data Mining, and Data Quality.

(b) Write a short note of Hopfield Artificial Neural Network

(c) Write down the conditions that the Six sigma Doctrine demands

(d) Write on Stochastic Frontier Analysis , Malm Quist Index **[(2.5 x 4)+2.5+2.5+5 = 20]**

Section C : Enterprise Risk Management [20 marks]

Question No. 8

(a) Discuss briefly the following sentences:

(i) The offshoot of Risk Adjusted Discount Rate is the Risk Adjusted Return on Capital.

(ii) Collective risk theory was actually developed by the insurance industry for studying the insurers' vulnerability to insolvency using mathematical modeling.

(b) Can a company manage Industry Risk? Explain in detail. **[(2x3)+4 = 10]**

Question No. 9

(a) "Corporate failure symptoms are interrelated" — do you agree this? Give your answer with reasonable explanation.

(b) CUSUM procedures are tools for detecting a shift from a good quality distribution to a bad quality distribution — Explain in short.

(c) 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 — Do you find any cause that lead Arcelor Steel to fail? If yes, what is that called? How it can be prevent?

(d) The key to preventing corporate failure is to spot the warning signs early, and take corrective action quickly — Discuss the sentence. **[2+3+2+3 = 10]**

Test Paper—IV/17/SPM/2012/T-2

Section A : Performance Management [60 marks]

Question 1

(a) State the components of Performance Management.

(b) "Interest of various related group is affected by the financial performance of a firm. Therefore, these groups analyze the financial performance of the firm. The type of analysis varies according to the specific interest of the party involved" - Describe the above statement.

(c) What is Process Analysis and objective of Process Analysis?

(d) Briefly describe about the Customer Satisfaction Index. **[2.5+1.5+2+4 = 10]**

Question 2.

(a) Following is the data regarding Six Divisions

(₹ in lakhs)

Particulars	A	B	C	D	E	F
Divisions Revenue	150	310	40	30	40	30
Divisions Result	25	(95)	5	5	(5)	15
Divisions Assets	20	40	15	10	10	5

The Finance Director is of the view that which Divisions are better positions.

(b) Hindustan Lever Limited, renamed Hindustan Unilever Limited

- **What is EVA?**

Traditional approaches for measuring shareholders' value creation have used parameters such as earnings capitalization, market capitalization and present value of estimated future cash flows. Extensive equity research has now established that it is not earnings *per se*, but value which is important. A new measure called 'Economic Value Added' (EVA) is increasingly being applied to understand and evaluate financial performance.

EVA = Net operating profit after taxes (NOPAT) - Cost of capital employed (COCE)
NOPAT = Profits after depreciation and taxes but before interest costs. NOPAT, thus, represents the total pool of profits available on an ungeared basis to provide a return to lenders and shareholders; and
COCE = Weighted average cost of capital (WACC) x Average capital *employed.*

Cost of debt is taken as the effective rate of interest applicable to an 'AAA' rated company like HLL with an appropriate mix of short-, medium- and long-term debt, net of taxes. We have considered pretax rate of 14% after taking into account the trends over the years. Cost of equity is the return expected by the investors to compensate them for the variability in returns caused by fluctuating earnings and share prices.
Cost of Equity = Risk-free return equivalent to yield on long-term Government bonds (taken at 12.5%)
(+)
Market-risk premium (taken at 9%) x Beta variant for the company (taken at 0.8), where the beta is a relative measure of risk associated with the company's shares as against the market as a whole.
Thus, HLL's cost of equity = 12.50% + 9.00% x 0.80 = 19.70%.

- **What does EVA show?**

EVA is the residual income after charging the company for the cost of capital provided by lenders and shareholders. It represents the value added to the shareholders by generating operating profits in excess of the cost of capital employed in the business.

When will EVA increase?

EVA will increase if:

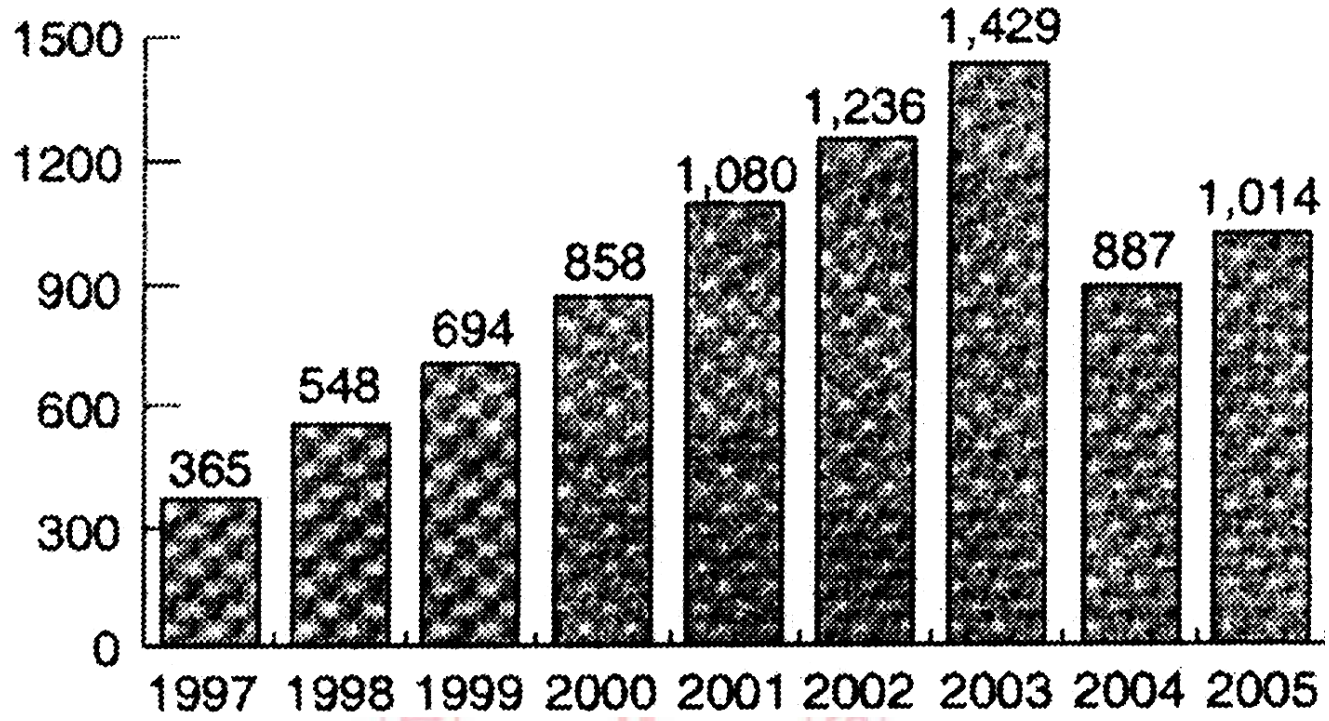
(1) Operating profits can be made to grow without employing more capital, i.e. greater efficiency;
(2) Additional capital is invested in projects that return more than the cost of obtaining new capital, i.e. profitable growth; and
(3) Capital is curtailed in activities that do not cover the cost of capital, i.e. liquidate unproductive capital.

- **EVA in practice at Hindustan Lever Ltd.**

Hindustan Lever, the goal of sustainable long-term value creation for the shareholders is well understood by all the business groups. Following table shows the EVA trend of the company from 1997 to 2005 —

(₹ in crore)	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cost of Capital Employed									
1.Average Debt	160	165	162	93	50	45	881	1588	360
2. Average Equity	1127	1487	1908	2296	2766	3351	2899	2116	2200
3. Average Capital Employed (1+2)	1,287	1,652	2,0702,389	2816	3396	3780	3704	2560	2678
4. Cost of Debt, post tax %	8.82	9.10	8.61	8.46	7.72	6.45	4.88	5.19	3.38
5. Cost of equity %	19.70	19.70	19.70	19.70	16.70	14.40	12.95	14.77	15.50
6.WACC	18.34	18.64	18.83	19.27	16.54	14.30	11.07	10.66	13.80
7. COCE (3x6)	236	308	390	460	466	486	418	395	353
EVA									
8.PAT before exceptional items	580	837	1070	1310	1541	1716	1804	1199	1355
9. Add. Interest after taxes	21	19	14	8	5	6	43	82	12
10. NOPAT	601	856	1084	1318	1546	1722	1847	1282	1367
11. COCE as per 7	236	308	390	460	466	486	418	395	353
12. EVA (10 – 11)	365	548	694	858	1080	1236	1429	887	1014

(Data are taken from Annual Report of HLL)



(i) "A new measure called 'Economic Value Added' (EVA) is increasingly being applied to understand and evaluate financial performance."- Explain this statement in the context of EVA.

(c) What is the aim of Transfer Pricing? **[2.5+3.5+2 = 8]**

Question 3.

(a) State the various types of Bench Marking?

(b)(i) What are the principles of the Lean Management?

(ii) IGF Ltd. supports the concept of the terotechnology or life cycle costing for new investment decisions covering its engineering activities. The finalized of this philosophy is now well established and its principles extended to all other areas of decision making.

The company is to replace a number of its machines and the Production Manager is to run between the 'X ' machine, a more expensive machine with a life of 12 years, and the 'W ' machine with an estimated life of 6 years. If the 'W' machines chosen it are likely that it would be replaced at the end of 6 years by another 'W' machine. The pattern of maintenance and running costs differs between the two types of machine and relevant data are shown below:

(₹ in '000)

Particulars	X	Y

Purchase Price	7,000	5,000
Trade in Value	1,200	1,200
Annual Repair Cost	800	1,040
Overhaul Costs (p.a.)	1,600	800
Estimated Financing Costs averaged over machine life (p.a)	10%	10%

You are required to recommend, with supporting figures , which machine to purchase, stating any assumption made. **[6+(2+4) = 12]**

Question 4.

(a)(i) Consider a modified form of "matching biased coins" game problem. The matching player is paid ₹ 8.00 if the two coins turn both heads and Re. 1.00 if the coins turn both tails. The non-matching player is paid ₹ 3.00 when the two cons do not match. Given the choice of being the matching or non-matching player, which one would you choose and what would be your strategy?

(ii) Briefly explain the rule of dominance in Game Theory.

(b) A person has two independent investments A and B available to him; but he can undertake only one at a time due to certain constraints. He can choose A first and then stop, or if A is successful then take B or vice versa. The probability of success of A is 0.6 while for B it is 0.4. Both investments require an initial capital outlay of Rs. 10.000 and both return nothing if the venture is unsuccessful. Successful completion of A will return ₹ 20,000 (over cost) and successful completion of B will return ₹ 24,000 (over cost). Draw decision tree and determine the best strategy.

(c) "The most important application of risk versus return (or mean/variance) indifference analysis concerns the construction of portfolios of financial assets and therefore lie beyond the scope of the study." – explain the Statement. **[(2.5+1.5)+3+3 = 10]**

Question 5.

(a) How profit is maximized under the condition of Perfect Competition

(b) (i) A manufacturer can sell 'x' items per month, at price P = 300 – 2x. Manufacturer's cost of production ₹ Y of 'x' items is given by Y = 2x + 1000. Find no. of items to be produced to yield maximum profit p.m.

(ii) 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 profit is maximum.

(iii) A monopolist has demand curve x = 106 – 2p and average cost curve (AC) = 5 + x/50. The total revenue is (R) = xp, determine the most profitable output and maximum profit.

(iv) K ltd. sells output in a perfectly competitive market. The average variable cost function K ltd. Is AVC = 300 – 40Q + 2Q2.K ltd has an obligation to pay ₹ 500 irrespective of the output produced. What is the price below which K ltd. has to shut down its operation in the short run? **[2+(2x4) = 10]**

Question 6.

(a) "Productivity is about the effective and efficient use of all resources. Resources include time, people, knowledge, information, finance, equipment, space, energy, materials." – Explain the Statement.

(b) British Airways (BA) Ltd was formed out of a merger of a number of smaller UK air transport companies in 1935. The company's service network is one of the world's largest and extends to 570 destinations in 135 countries. BA has invested £1 billion towards service and comfort of the passengers during the last decade. It won the Business Traveller's Award for 11 successive years and its fleet of 344 aircraft is one of the largest in Western Europe. The Head Office is located near Heathrow and BA serves both Heathrow and Gatwick airports. About 60,000 people are employed in the BA group.

Heathrow is the busiest international airport in the world with over 90 airlines having their base there. 64 million passengers pass through Heathrow every year for approximately 170 destinations. Other minor, yet interesting, facts to know are : over 80 million pieces of baggages pass through the airport every year, every day over 2600 cups of tea, 6500 pints of beer and 6500 sandwitches are sold at Heathrow. The Heathrow Lost Property Office receives over 200 enquiries per day.

In 1997, the operation at Heathrow was in need of a change programme. BA's performance was poor and a new manager was hired with an experience of implementing the Balance Scorecard (BSC) as a change instrument.

The new manager was given the charge of the baggage handling unit, having 3000 workers. He immediately decided to use BSC as an instrument in the change process.

The new management team went for an offsite meeting to discuss how to turn around the operation. The team asked each unit to describe how they thought the customers judged their performance and derived measures from this perception. The metrics in the scorecard were thus developed from the customer's viewpoint for all four perspectives.

The results from the offsite session made the scorecard tangible, understandable and verifiable. The new manager asked the unit managers to set and tailor their set of performance indicators, but the importance of each metric must be explained.

The turnaround project reflected positive results through the use of BSC and the manager was given additional responsibility of the 'front-line customer service' unit.

Scorecards are now the management control system at BA Heathrow. Each unit of BA plans its operations according to the dimensions in the scorecard, evaluates investments according to it, and monitors performance. The managers at Heathrow have now decided to report the unit's performance through scorecards – even though the superior manager may not have asked for it.

Describe of the four perspectives of BSC and explain how British Airways Limited uses BSC as a management control system. **[5+5 = 10]**

Section B : IT and Econometric tool in Performance Management [20 marks]

Question 7.

(a) Statistical Quality Control (SQC) is a necessary part of the production — Discuss.

(b) What does Null Hypothesis mean?

(c) Write short note on Principal Component Analysis.

(d) Briefly explain the benefits of Total Productivity Management.

(e) Business Intelligence and Performance Management Relate to each other — explain in brief.

(f) Strategic-level information systems help senior management to tackle and address strategic issues and long-term trends — discuss in brief.

(g) What do you mean by term Data Warehousing? **[4+1+4+4+3+2+2 = 20]**

Section C : Enterprise Risk Management [20 marks]

Question No. 8

(a) What do you mean by Operational Risk? Is this risk can be managed? If yes, then how?

(b) Value at Risk essentially identifies the boundary between normal days and extreme occurrences — Discuss.

(c) Name the liquidity ratios that are proposed in Basel III. **[5+4+1 = 10]**

Question No. 9

(a) Briefly describe the techniques used in bankruptcy prediction.

(b) The Z-Score model is a quantitative model to predict financial distress of a business — Is this a true statement?

(c) The focus of responsibility for failing organizations lies with top management — Discuss in short.
[5+3+2 = 10]