PAPER 5: COST MANAGEMENT
November 2003

Question No.1 is compulsory
Answer any four questions from the rest.
Working notes should form part of the answer. Makes assumption wherever necessary.

Question 1

(a) What is JIT? Explain, how it eliminate wastages of resources. **(4 Marks)**

(b) Explain the usefulness of Pareto analysis and its applicability to business situations. **(4 Marks)**

(c) Jolly Fabrics manufacturers quality napkins at its unit in Tirupur. The unit has a capacity of 60,000 napkins per month.. present monthly production for April is 40,000 napkins. Cost incurred for production are as below: (per unit) **(16 Marks)**

Direct material	Rs.6	No fixed cost
Direct labour	Rs.2	Fixed cost 75%
Manufacturing overhead	Rs.4	Variable 25%
Total	Rs.12	

The marketing costs per unit is Rs.7 (Rs.5 is variable). Marketing costs include distribution costs and customer service costs. Present selling price is Rs.22.50 per unit.

Due to a strike at its existing napkin supplier, a hotel group has offered to buy 10,000 napkins from Jolly Fabrics @ Rs.11 per napkins for the month of June. No further sales to the hotel are anticipated. Fixed manufacturing costs and marketing costs are tied to the 60,000 napkins. The acceptance of the special order is not expected to affect the selling price to regular customers.

No marketing costs involved in special order, prepare:

(i) Budgeted income statement for June.
(ii) Actual income statement under absorption costing for April.
(iii) Should Jolly Fabrics accept the special order from the hotel or not?

Question 2

(a) Find the optimal solution for the assignment problem with the following cost matrix: **(10 Marks)**

Marketing Executive	Division N	E	W	S
A	14	20	11	19
B	12	10	15	9
C	16	19	18	15
D	17	13	15	14

(b) Compare value chain analysis from Traditional Management Accounting. **(4 Marks)**

(c) What do you mean by Bench Marking? What are perquisites of Bench Marking? **(5 Marks)**

Question 3

(a) Distinguish Marginal Costing and Absorption Costing **(4 Marks)**

(b) Explain Pricing by Service Sector **(3 Marks)**

(c) Department X is a profit centre manufacturing products V*x*, X*l*, and X*t*,. Each of the products can be sold in the outside market to the extent of the following: **(12 Marks)**

V*x*	900 units
X*l*	300 units
X*t*	600 units

Market price per unit is Rs.24, Rs.23 and Rs.20 for V*x*, X*l*, and X*t*,. Respectively. Other details are given below:

Products	V*x*,(Rs.)	X*l*(Rs.)	X*t*.(Rs.)
Variable cost of production	17	12	14
Labour hours required	3	2	4

Product Vx can be transferred to department y, but the maximum quantity that might be required for transfer is 400 units of Vx. The Manager of department y has powr to buy the product Vx form the external market at a much cheaper price of Rs.22.
What should be the transfer price for each unit for 400 units of Vx , if the total labour hours available in Department x is
(a) 4,800 hours
(b) 6,200 hours?

Question 4

(a) A manufacturing company has an installed capacity of 1,50,000 units per annum. Its cost structure is given below: **(12 Marks)**

	(Per unit) Rs.
Variable cost	10
Labour (minimum Rs.1,00,000 per month)	10
Overheads	4
Fixed overheads : Rs.1,92,300 per annum	

Semi-variable overheads Rs.60,000 per annum at 75% capacity, which increases by Rs.4,000 per annum for every 5% increases in capacity utilization for the year as a whole.
The capacity utilization for the next year is estimated at 75% for three months 80% for six months and 90% for the remaining part of the year. If the company is planning to have a profit of 20% on the selling price, calculate the selling price per unit?

(b) What is Life cycle costing? Explain the stages in product life cycle? **(7 Marks)**

Question 5

(a) Asha Road Carriers is a transporting company that transports goods from one place to another. It measures quality of service in terms of : **(11 Marks)**
i. Time required to transport goods.
ii. On-time delivery
iii. Number of lost or damaged cartons.

To improve its business prospects and performance the company is seriously considering to install a scheduling and tracking system, which involves an annual outlay of Rs.1,50,000, besides equipments costing Rs.2,00,00 needed for installation of the system. The company proposes to utilize the proceeds of the fixed deposit maturing next month to purchase the equipment. The rate of interest at present on deposit is 10%.
The company furnishes the following information about its present and anticipated future performance:

	Current	Expected
On-time delivery	85%	95%
Variable costs per carton lost or damaged	Rs.50	Rs.50
Fixed costs per carton lost	Rs.30	Rs.30
Number of cartons lost or damaged	3,000	1,000

The company expect that each per cent point increase in on-time performance will result in revenue increase of Rs.18,000 per annum. Contribution margin of 45% is required. Should Asha Road Carriers acquire and install the new system?

(b) A manufacturer produces two products D1 and D2 using two machines R1 and R2. Products D1 requires 2 hours on machine R1 and 6 hours on machine R2. Product D2 utilizes 5 hours of machine R1 only. Total hours available per day on machine R1 is 16 and R2 is 30. Profit margin from D1 and D2 is Rs.2 and Rs.10 per unit respectively. Using simplex method find out the daily production mix to optimize profit. **(8 Marks)**

Question 6

(a) Explain the theory of Constraints. **(4 Marks)**

(b) What is Monte Carlo simulation? How it is useful in inventory control? **(4 Marks)**

(c) Supreme Ltd., which manufactures the component EXCEL, has achieved a turnover of Rs.6,00,000 for the calendar year 2002. The manager of the company has informed that the company has worked at a profit volume ratio of 25% and margin of safety of 20%. But he feels due to sever competition, the selling price is to be reduced to maintain the same volume of sales for the year 2003. He does not expect any change in variable costs. He expects that due to cost reduction programme, the profit volume ratio and margin of safety will be 20% and 30% respectively and considerable saving in Fixed cost for 2003. **(11 Marks)**

Even if the company prefers to shut down its operations for 2003, it expects to incur a minimum fixed cost of Rs.60,000. You are expected to:

(i) Present the comparative statement for the year 2002 and 2003 showing under marginal costing.

(ii) What will be minimum sales required, if it decides to shut down its unit in 2003?.