TTL 762 Management of Textile Production: Minor 2; 21-03-2015

1) What is average rate of return? (2)

2) Using graphs, represent 'margin of safety (amount)' (2)

3) Using half yearly sales revenues and profits, how do you calculate PV? (2)

4) A company has to install a nonwoven line and the choice has been narrowed down to A and B. The prices of these are Rs. 80 and 60 million respectively. The annual CFAT associated with these lines are Rs 16 and 12 million respectively through 1 to 14 years. There are no salvage values for these lines. Which line do you suggest? The cost of capital is 14% (4)

5) Last year, a fabric manufacturer produced three fabrics X, Y and Z and sold them at Rs. 100, 120 and 200 respectively per meter. The profits as a percentage of selling price are 25, 30 and 20 respectively. The units produced and sold (in m) were 100000, 150000 and 70000 respectively. The production of 320000 m constituted only 80% of installed capacity. The fixed costs incurred on these fabrics were Rs. 1000000, 1200000 and 1000000 respectively. This year, the variable costs are expected to increase by 10% without change in selling prices and fixed costs (10)

   i) Calculate the PV ratios of each product and the whole company for both the years at 80% capacity

   ii) Calculate 'Margin of safety (in m)' of the company for both the years at 80% capacity

   iii) This year, the sales demand is unlimited for all the products and the company wants to allocate the spare capacity to only one of these products so as to reach 100 % capacity. Assuming that the time required making each product is same and there are no labour, material and supervision constraints, advice the company with reasons, on which of these three products, the company should enhance the production so that the overall profitability is maximum. What is the expected operating profit of the company? Assume that the variable costs are expected to increase by 10% without change in selling prices and fixed costs.

## TTL 762 MANAGEMENT OF TEXTILE PRODUCTION: MINOR 1

**Date & time: 16-02-2015; 1-2 PM**

Answer ALL the questions; Max marks-20

1) What is spatial relationship in work place? Give an example (2)
2) What are the important aspects of operation planning (2)
3) What are the differences between *EOQ* and *EBQ*? (B is Batch) (2)
4) Write the tasks involved in purchase management (2)
5) What are factors that are beyond the control of an enterprise, yet they affect the enterprise's demand forecast? (2)
6) What is carrying cost of inventory? How does it vary with order quantity? What are the components of carrying cost? (3)
7) In a garment factory, the cycle time for sewing of a sweater is 150 s. Prepare a production layout having work stations. Compute the number of workers and line efficiency for the data given below (7):

| | Operation in sewing | Machine | Time, s |
|---|---|---|---|
| 1 | Middle seam-face and hood | SM03 | 31 |
| 2 | Bar on external head | OM | 18 |
| 3 | Cuff-opening for finger | OM | 236 |
| 4 | Belt on side | SM03 | 5 |
| 5a | Turning, bending belt in half | Manual | 5 |
| 5b | Shoulder reinforcement | SM03 | 16 |
| 6 | External hood on neck part | SM03 | 26 |
| 7 | Overlock seam front part for zipper hole of internal hood | SM03 | 17 |
| 8 | Front left part with front part from zipper | OM | 19 |
| 9 | Sewing zipper | OM | 182 |
| 10 | Internal, external hood, neck from bar | SM03 | 392 |
| 11a | Turning hood | Manual | 19 |
| 11b | Closing neck part with bar | OM | 75 |
| 12 | Sleeves | SM03 | 46 |
| 13 | Topstitch on sleeves | SM2 | 80 |
| 14 | Side seam, sleeves, with label | SM03 | 49 |
| 15 | Cuffs | SM03 | 31 |
| 16 | Belt | SM03 | 53 |
| 17 | Topstitch on belt | SM2 | 72 |