



B.TECH DEGREE EXAMINATIONS: DEC 2022

(Regulation 2018)

Seventh Semester

TEXTILE TECHNOLOGY

U18TXT7002: Textile and Apparel Costing

COURSE OUTCOMES

- CO1:** Discuss the cost management concepts.
CO2: Explain elements of cost of a product.
CO3: Discuss various expenses incurred in textile industry.
CO4: Elaborate factors influencing costing of textile product.
CO5: Prepare cost sheet for garment industry.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

- | | | |
|--|-----|-------------------|
| 1. What do you mean by economic order (EOQ) quantity? | CO1 | [K ₂] |
| 2. List out the need for costing in a textile industry. | CO1 | [K ₂] |
| 3. What is marginal costing? | CO2 | [K ₂] |
| 4. List out any four factors affecting pricing of textile product. | CO2 | [K ₂] |
| 5. Define depreciation. | CO3 | [K ₂] |
| 6. What do you mean by break-even point? | CO3 | [K ₂] |
| 7. What is batch costing? | CO4 | [K ₂] |
| 8. Find out the weight of garment if the total garment length is 73.66cm, sleeve length is 20.32 cm, allowance for total length of garment is 10 cm, half chest width is 50.8 cm, allowance given for half chest length is 7 cm, and the GSM is 185 and the waste per piece is 5 % | CO4 | [K ₃] |
| 9. List out any four accessories used for packing men's shirt meant for export. | CO5 | [K ₂] |
| 10. List out the factors influencing the cost of shipment in case of textile material export. | CO5 | [K ₂] |

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11. Distinguish between estimation and real costing. CO1 [K₂]
12. Prepare a cost sheet for knitting unit using the following details. Find the total cost using cost sheet. Also find cost per piece, selling price. CO2 [K₄]

| Particulars | Amount in Rs |
|--|---------------|
| Yarn consumed | 4,00,000 |
| Accessories used | 1,00,000 |
| Productive labour charges | 90,000 |
| Knitting charges | 16,000 |
| Dyeing charges | 1,60,000 |
| Compacting Charges | 12,000 |
| Power Factory: Office: S&D = 3:1.5:0.5 | 50,000 |
| Salary Factory: Office: S&D = 1.5:2.5:0.5 | 1,50,000 |
| Spares parts in factory | 40,000 |
| Stationary Factory: Office: S&D = 1:2.5:1.5 | 6,000 |
| Transport Factory: Office: S&D = 1:1:2 | 40,000 |
| Other expenses Factory: Office: S&D = 1:1:2 | 1,00,000 |
| Total production | 10,000 pieces |
| Profit | 15% |

13. Calculate the Cost of grey fabric per linear meter using the following details CO3 [K₄]

| | |
|-------------------|-----------|
| Warp count | 20's Ne |
| Weft count | 20's Ne |
| Rate of warp yarn | Rs 130/Kg |
| Rate of weft yarn | Rs 130/Kg |
| Warp crimp% | 10% |
| Width of fabric | 63 inches |
| Selvedge ends | 20 |
| EPI | 60 |

| | |
|--------------------|-------------------|
| PPI | 60 |
| Sizing cost | Rs 18/Kg |
| Conversion cost | 20 paise per pick |
| Value loss% | 3% |
| Sales commission % | 2% |
| Transport % | 1% |
| Profit % | 5% |

14. A woven fabric manufacturing industry received an order to develop fabric with following description with an order quantity of 40,000 metres. The fabric is made of 100% mercerised cotton in warp and 100% polyester in weft with the 80EPI, 66 PPI, Warp count is 50s Ne and the weft count is 80 Denier and the warp and weft crimps are 6% and 8%, respectively. Consider that, the fabric consumption per shirt is 1.75 square metre. The fabric has been processed through scouring, bleaching (2%), dyeing (4%) and finishing (6%). The weaving shed produces fabric width of 63". The pick rate is 0,26 Rs. The other particulars are given in the table below

| S.No | Particulars | Cost/Kg in Rs |
|------|----------------------------|---------------|
| 1 | 50' s cotton yarn | 465 |
| 2 | 80 denier Polyester yarn | 285 |
| 3 | Pick rate | 0.26 |
| 4 | Scouring charges | 80 |
| 5 | Bleaching charges | 70 |
| 6 | Mercerization charges | 95 |
| 7 | Dyeing charges | 70 |
| 8 | Silicone finishing charges | 105 |

Calculate the fabric cost per garment.

15. A packing department received an order of polo T-shirt with quantity of 9550 garments. The department needs to press the garments and pack it in the following method. Four T-shirts are needs to be packed with a single pouch with an insert card for each garment and each garment must be tagged with a brand name tag. The bullet tag is used for each tagging process. Each pouch is stuck with one small barcode sticker and a size sticker. Each carton box consists of 50 pouches. One big barcode sticker is stuck on each carton box. After that, the carton box is taped with a brown gum tape. Each tape roll can be used to pack five carton boxes. The company works with pressing and packing production capacity of 1050 garment per day if the company works one shift per day. The pressing department consists of eight labours with the wage of Rs.280 per shift. The number of packing person used in the department is 10 and their wage is Rs. 250 per shift. Calculate the packing cost of the order with 3% profit. The cost details of the raw material are provided as follows: The cost of a pouch –Rs. 3, Carton box is Rs.50, Insert card isRs. 0.90, Price of a tag is Rs.0.40, Small barcode sticker price is Rs. 0.20, Size sticker price is Rs. 0.20, Bullet (to tag brand tag) price is Rs. 15/100 bullet, Big barcode sticker price is Rs. 1.00 and the price of the gum tape is Rs. 20 / roll. The average overhead expenditure for the department is Rs. 850 per day. Calculate the packing cost of a garment. CO5 [K₅]
16. An apparel manufacturing firm works with 12 single needle operators, 18 over lock machine operators and 8 flat lock machine operators to complete an order quantity of 10,000 garments with the average production of 1667 garments per shift. The wages of the operator were Rs. 250.00, Rs.200.00 and Rs. 150.00 per shift, respectively for flat lock, single needle and over lock machine. The factory uses 8 helpers for this line alone with the wage of Rs.120.00 per shift. Other than this during sewing, for construction, each garment consumes 70 metres of sewing thread, 1.5 metre of twill tape and 7 buttons. The cost of the sewing thread is Rs.75 per cone, cost of the twill tape is Rs.5.00 per metre and cost of the button is Rs. 100/ gross. The other overheads incurred are Rs.25,000 / month for salary of other staff, Rs. 20,000 / month for building rent and Rs.1,50,000 for other expenses. Calculate the sewing cost of the factory with 15% profit, if the company works one shift per day. (Sewing thread one package of cone contains 5000mts). Overhead cost is 120% of direct labour cost. CO5 [K₅]
