



B.TECH DEGREE EXAMINATIONS: DEC 2022

(Regulation 2018)

Fifth Semester

FASHION TECHNOLOGY

U18FTT5003: Knitting Technology

COURSE OUTCOMES

- CO1:** Recognize the weft knitted fabric production processes
CO2: Outline the structure and properties of various weft knitted fabrics
CO3: Acquire know ledge on the structure and properties of various advanced weft knitted fabrics
CO4: Recognize the structure and properties and in warp knitting
CO5: Recognize the Latest developments in warp knitting
CO6: Acquire knowledge on the application of knitted structures for Technical Textiles

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

- | | | |
|--|-----|-------------------|
| 1. Identify the knitting elements in single jersey and rib knitting machine. | CO1 | [K ₁] |
| 2. List the important yarn quality requirements for knitting. | CO1 | [K ₂] |
| 3. Categorize the basic weft knitted structures. | CO2 | [K ₂] |
| 4. Name the weft knitted fabric defects. | CO3 | [K ₁] |
| 5. What is eight lock structure? Illustrate needle and graph paper representation. | CO2 | [K ₂] |
| 6. Define seamless knitting in weft knitting. | CO3 | [K ₁] |
| 7. What is pattern disc in warp knitting? furnish their functions. | CO4 | [K ₁] |
| 8. Compare the fabric delivery angle of tricot and Raschel knitting machine | CO4 | [K ₂] |
| 9. Categorize warp knitted fabric with respect to guide bar used. | CO5 | [K ₂] |
| 10. Furnish the characteristics of loop raised structure in warp knitting. | CO5 | [K ₁] |

Answer any FIVE Questions:-

PART B (5 x 4 = 20 Marks)

(Answer not more than 80 words)

- | | | |
|---|-----|-------------------|
| 11. Discuss the cycle of knitting action in latch, spring beard and compound needles with suitable illustrations. | CO1 | [K ₁] |
| 12. Explain the knitted fabric geometry with respect to K _c , K _w and K _s . | CO2 | [K ₂] |
| 13. The 40 ^s Ne yarn is used for the production of single jersey fabric from 30-inch diameter, 28 | CO1 | [K ₃] |

gauge circular machine 140 feeders. The produced fabric particulars are, the loop length in a fabric is 0.12 inch, WPI is 46 and CPI is 50. Calculate the GSM of the fabric and production per shift of 8 hours.

14. Discuss the comparison of tricot and Raschel warp knitting machine with respect to knitting elements and its process. CO4 [K₂]
15. Explain the characteristics of full tricot and lock knit fabric with suitable needle representations. CO4 [K₂]
16. Categorize weft and warp knitting machines with respect to knitting needle. CO5 [K₂]

Answer any FIVE Questions:-
PART C (5 x 12 = 60 Marks)
(Answer not more than 300 words)

17. a) Discuss the comparison of weaving and knitting with respect to principle and process. CO1 [K₂]
b) Explain the passage of material in circular knitting machine with simple illustration. CO1 [K₁]
18. a) Discriminate the characteristics of knit, tuck and float stitches with various representations CO2 [K₂]
b) List the derivatives of rib fabrics and discuss the derby rib & Milano rib with suitable representations. CO2 [K₂]
19. a) Categorize interlock gaited structures and discuss the formation of single pique fabric production in interlock knitting machine. CO3 [K₂]
b) Discuss the applications of weft knitted structures in technical textiles. CO6 [K_L]
20. a) Explain the comparison of weft knitting and warp knitting. CO1,4 [K₄]
b) Explain the principle of basic stitches formation in warp knitting machine. CO4 [K₂]
21. a) What is Raschel net fabric? Discuss the characteristics of power net fabric with needle representation. CO4 [K₂]
b) Discuss the important developments in warp knitting machine. CO5 [K₂]
22. a) Explain the comparison of rib and purl structures. CO1 [K₄]
b) Discuss the important developments in weft knitting machine. CO3 [K₂]
