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G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.



UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2020 and later)

PROGRAMME AND BRANCH: B.Sc., COSTUME DESIGN AND FASHION

| SEM | CATEGORY | COMPONENT | COURSE CODE | COURSE TITLE |
|-----|----------|-----------|-------------|---------------------|
| V | PART-III | CORE | U20CF510 | KNITTING TECHNOLOGY |

Date & Session: 26.04.2025/AN

Time: 3 hours

Maximum: 75 Marks

| Course Outcome | Bloom's K-level | Q. No. | SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions. |
|----------------|-----------------|--------|--|
| CO1 | K1 | 1. | What is the main difference between weaving and knitting? a) Knitting uses interlacing, weaving uses interlooping b) Weaving uses interlacing, knitting uses interlooping c) Both use interlacing d) Both use interlooping |
| CO1 | K2 | 2. | Which of the following is a knitting machine element? a) Shuttle b) Latch needle c) Cam d) Bobbin |
| CO2 | K1 | 3. | What is the function of a circular knitting machine? a) Producing warp knit fabrics b) Producing seamless weft knit fabrics c) Producing woven fabrics d) Producing non-woven fabrics |
| CO2 | K2 | 4. | What is the primary characteristic of weft knitting? a) Requires multiple yarns b) Can be unravelled easily c) Produces rigid fabrics d) Forms only woven fabric |
| CO3 | K1 | 5. | Which of the following is a warp knitting machine? a) Circular knitting machine b) Raschel machine c) Flatbed machine d) Shuttle loom |
| CO3 | K2 | 6. | Which of the following fabrics is usually made using warp knitting? a) Terry cloth b) Tricot fabric c) Denim d) Chiffon |
| CO4 | K1 | 7. | What is the purpose of the Jacquard mechanism in knitting? a) Creates complex patterns b) Produces plain fabrics c) Reduces fabric weight d) Increases elasticity |
| CO4 | K2 | 8. | What does the GSM calculation in Jacquard knitting determine? a) Fabric elasticity b) Fabric weight per square meter c) Fabric Density d) Fabric width |
| CO5 | K1 | 9. | Which machine is used for seamless knitting? a) Tricot machine b) Flatbed knitting machine c) Circular knitting machine d) Shuttle loom |
| CO5 | K2 | 10. | What is a common defect in knitted fabric production? a) Barrie Effect b) Tuck stitches c) Loose seams d) Woven faults |

| Course Outcome | Bloom's K-level | Q. No. | SECTION - B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b) |
|----------------|-----------------|--------|--|
| CO1 | K3 | 11a. | Explain the difference between weaving and knitting. (OR) |
| CO1 | K3 | 11b. | Draw and describe the yarn passage diagram of a circular knitting machine. |
| CO2 | K3 | 12a. | Analyze the effect of stitch length on the properties of weft knitted fabrics. (OR) |
| CO2 | K3 | 12b. | Describe the structure of rib and interlock knit fabrics with diagrams. |
| CO3 | K4 | 13a. | Compare the working principles of Tricot and Raschel knitting machines. (OR) |
| CO3 | K4 | 13b. | Explain any two basic lapping variations in warp knitting with simple diagrams. |
| CO4 | K4 | 14a. | Compare jacquard knitting with non-jacquard knitting in terms of patternmaking capabilities. (OR) |
| CO4 | K4 | 14b. | Explain the role of programmed tape in Jacquard knitting machines. |
| CO5 | K5 | 15a. | Assess the importance of maintenance processes like washing and ironing in extending knitwear life. (OR) |
| CO5 | K5 | 15b. | Justify the significance of the Tirupur knitwear market in global trade. |

| Course Outcome | Bloom's K-level | Q. No. | SECTION - C (5 X 8 = 40 Marks) Answer ALL Questions choosing either (a) or (b) |
|----------------|-----------------|--------|--|
| CO1 | K3 | 16a. | Compare and contrast the principles of weft and warp knitting in terms of fabric properties. (OR) |
| CO1 | K3 | 16b. | Explain the classification of knitting machines and their applications. |
| CO2 | K4 | 17a. | Describe the different types of needle gating systems used in weft knitting machines. (OR) |
| CO2 | K4 | 17b. | Explain the production calculations for circular knitting GSM with an example. |
| CO3 | K4 | 18a. | Explain different warp knitting terminologies and analyze their significance in fabric production. (OR) |
| CO3 | K4 | 18b. | Examine the structure and properties of standard two-bar warp knit fabrics and explain their applications in textiles. |
| CO4 | K5 | 19a. | Assess the impact of course and wales per inch on Jacquard fabric quality. (OR) |
| CO4 | K5 | 19b. | Assess the effect of different Jacquard pattern-making techniques on fabric aesthetics and durability. |
| CO5 | K5 | 20a. | Evaluate the advantages and limitations of seamless knitting in sportswear production. (OR) |
| CO5 | K5 | 20b. | Justify the importance of dyeing techniques in improving the quality of knit fabrics. |