



B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Third Semester

TEXTILE TECHNOLOGY

U18TXT3003: Fabric Manufacture I

COURSE OUTCOMES

- CO1:** Summarize the requirements of preparatory machines for producing woven fabric with required qualities
- CO2:** Explain the concept and mechanism of preparatory processes.
- CO3:** Describe the functioning of various motions and it's timing in shuttle weaving machine.
- CO4:** Explain the concept and mechanism of various motions of shuttle weaving machine.
- CO5:** Select and control the process variables of various motion at loom.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

- | | |
|---|-----------------------|
| 1. Define angle of wind. | CO1 [K ₁] |
| 2. State the objective of EYC in automatic cone winder. | CO1 [K ₂] |
| 3. Suggest the method of warping for weaving strip and check pattern. | CO2 [K ₁] |
| 4. List four primary ingredients used in size preparation for cotton yarn sizing. | CO2 [K _L] |
| 5. State the objectives of loom gaiting. | CO3 [K ₁] |
| 6. Recall the purpose of secondary motions in a loom. | CO3 [K ₂] |
| 7. Classify shedding mechanism. | CO4 [K ₁] |
| 8. Identity the mechanism helps in stopping the loom when weft yarns broke. | CO4 [K _L] |
| 9. State the purpose of auxiliary motions in loom. | CO5 [K ₁] |
| 10. Differentiate side weft fork and center weft fork mechanism. | CO5 [K ₂] |

Answer any FIVE Questions: -

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

- | | | | |
|-----|--|-----|-------------------|
| 11. | Illustrate the working principle of automatic cone winding machine and explain their parts. | CO1 | [K ₃] |
| 12. | Illustrate the principle of working of any one type of sizing machine with all specifications and suggest the beam preparation sequence for weaving stipe and check fabrics. | CO2 | [K ₃] |
| 13. | Analyze the primary, secondary and auxiliary motions of fully automatic loom through loom timing diagram. | CO3 | [K ₄] |
| 14. | Illustrate the single lift single cylinder jacquard and explain their functions. | CO5 | [K ₄] |
| 15. | Identify a mechanism that helps in stopping loom rapidly while shuttle trap in between the shuttle boxes and explain its principle of working. | CO4 | [K ₄] |
| 16. | Explain the principle of working of negative tappet shedding mechanism with simple diagram. | CO4 | [K ₃] |
