



B.TECH DEGREE EXAMINATIONS: DEC 2022

(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.
CO6: Design and execute the procedure for producing woven fabric.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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|--|-----|-------------------|
| 1. Identify the characteristics of parallel and cross winding during cone winding. | CO1 | [K ₁] |
| 2. State the purpose of bunch formation while pirn winding. | CO2 | [K ₂] |
| 3. Compare direct and indirect warping. | CO3 | [K ₁] |
| 4. List the primary ingredients used for preparing the size paste with examples. | CO2 | [K _L] |
| 5. State the objectives of temple motion in loom | CO3 | [K ₁] |
| 6. Recall the process of beam gaiting during loom preparation. | CO3 | [K ₂] |
| 7. State the purpose of reversing mechanism in loom. | CO4 | [K ₁] |
| 8. Identify the mechanism to monitor the presence of weft in weaving. | CO4 | [K _L] |
| 9. State the purpose of terry motion in loom. | CO4 | [K ₁] |
| 10. How will you adjust the warp tension in a loom? | CO4 | [K ₂] |

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

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|-----|---|-----|-------------------|
| 11. | Illustrate the principle of working of automatic cheese/cone winding machine and list the importance of tensioners and slub catchers. | CO1 | [K ₃] |
| 12. | Illustrate the principle of working of multi cylinder sizing machine with specifications and suggest the beam preparation sequence for weaving check fabrics with multi colored unsized warp. | CO2 | [K ₃] |
| 13. | Analyze the primary and secondary motions of automatic loom with respect to angular position of crank by loom timing diagram. | CO3 | [K ₄] |
| 14. | Analyze the factors involved in geometry of shed and explain the importance of bending factor with diagram. | CO5 | [K ₄] |
| 15. | Compare and contrast the features of fast and loose reed motion in loom and Explain the principle of working of fast reed motion. | CO4 | [K ₄] |
| 16. | Select the shedding mechanism for producing large figured patterns and explain the principle of working of any one shedding mechanism with appropriate diagram. | CO6 | [K ₃] |
