



B. TECH DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Seventh Semester

TEXTILE TECHNOLOGY

U18TXE0013: Testing of Functional and Technical Textiles

COURSE OUTCOMES

- CO1:** Outline the testing of functional textiles
- CO2:** Explain the testing of comfort characteristics of fabric
- CO3:** Discuss on moisture transmission tests
- CO4:** Summarize testing of functional finishes in textiles
- CO5:** Illustrate on the testing of protective textiles

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. State the objectives of testing of functional textile. | CO1 | [K ₂] |
| 2. Why testing required for technical textile? | CO1 | [K ₂] |
| 3. What are primary hand values? | CO2 | [K ₁] |
| 4. Outline the various modules used in FAST instrument. | CO2 | [K ₁] |
| 5. Compare wetting and wicking testing of fabric. | CO3 | [K ₁] |
| 6. What are transmission properties of fabric? | CO3 | [K ₂] |
| 7. Give any two standards for tensile strength test for geotextile. | CO4 | [K ₁] |
| 8. Enlist the non-destructive testing methods of composites. | CO4 | [K ₃] |
| 9. What are ballistic evaluation techniques? | CO5 | [K ₂] |
| 10. Give some standards for UV protection. | CO5 | [K ₂] |

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

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|-----|---|-----------------------|
| 11. | Discuss the tensile testing methods employed for fibre reinforced composite material. | CO1 [K ₃] |
| 12. | Explain the working principle of Kawabata evaluation system for measuring low stress mechanical properties. | CO2 [K ₃] |
| 13. | Discuss in detail the testing of water transmission characteristics with necessary diagram. | CO3 [K ₃] |
| 14. | Summarize the various test methods adopted for filter fabrics. | CO4 [K ₃] |
| 15. | Explain the test procedure for electromagnetic shielding on technical fabrics. | CO5 [K ₃] |
| 16. | Discuss the test methods adopted for compression bandages. | CO5 [K ₃] |
