



B.TECH. DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Second Semester

TEXTILE TECHNOLOGY

U18TXI2201: Textile Fibres

COURSE OUTCOMES

CO1: Discuss about the natural fibres.

CO2: Discuss about manufacturing process, properties & applications of regenerated fibers.

CO3: Explain about the manufacturing process, properties & applications of synthetic fibers.

CO4: Summarize about specialty fibers and identification of fibers.

CO5: Outline about the post spinning operations.

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. Classify textile fibers. | CO1 | [K ₁] |
| 2. State the applications of jute fibres. | CO1 | [K ₂] |
| 3. Compare wet and dry spinning systems. | CO2 | [K ₃] |
| 4. State any two examples for regenerated protein fibres. | CO2 | [K ₂] |
| 5. What is the unique property of nylon fibre? | CO3 | [K ₃] |
| 6. State the end uses of polypropylene fibres. | CO3 | [K ₂] |
| 7. What is the unique property of SAP? | CO4 | [K ₂] |
| 8. State the end uses of bicomponent fibres. | CO4 | [K ₂] |
| 9. What is the role of spin finish in fibre manufacturing? | CO5 | [K ₃] |
| 10. State the objectives of texturisation process. | 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. | a) | Discuss the morphological structure and properties of cotton fibre with a neat sketch. | 8 | CO1 | [K ₂] |
| | b) | Describe the morphological structure and properties of silk fibre with a neat sketch. | 8 | CO1 | [K ₂] |
| 12. | a) | Explain the process of manufacture of viscose fibers by wet spinning with flow chart. | 10 | CO2 | [K ₃] |
| | b) | What is involved in the process of dry spinning? Explain the characteristics of dry spun fibers. | 6 | CO2 | [K ₃] |
| 13. | a) | Explain the manufacturing, properties and applications of Polyester fibres. | 8 | CO3 | [K ₂] |
| | b) | Explain the manufacturing, properties and applications of PAN fibres. | 8 | CO3 | [K ₃] |
| 14. | a) | Compare the properties and applications of para & meta-aramid fibres. | 8 | CO4 | [K ₃] |
| | b) | Discuss the properties of glass and carbon fibres. | 8 | CO4 | [K ₂] |
| 15. | a) | Explain the process of drawing of synthetic fibres. Also discuss the effect of various parameters on drawing behaviour. | 8 | CO5 | [K ₄] |
| | b) | What is involved in the process of texturisation? How fibres are textured? | 8 | CO5 | [K ₃] |
| 16. | a) | Discuss the structure, properties and applications of silk. | 8 | CO1 | [K ₃] |
| | b) | Explain the manufacturing, properties and applications of elastomeric fibres. | 8 | CO3 | [K ₂] |
