

B.TECH DEGREE EXAMINATIONS: JUNE 2010

Second Semester

(TEXTILE TECHNOLOGY) FASHION TECHNOLOGY

FTY101: Fibre Science

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10 X 1 = 10 Marks)

1. _____ is a vegetable fibre.
A. Cotton B. Silk C. Wool D. Polyester
2. The wool fibre consists of _____ on its surface.
A. Convolution B. Folds C. Scales D. Striations
3. _____ is a regenerated protein fibre.
A. Wool B. Silk C. Caesin D. Jute
4. The polyester is manufactured from _____ spinning system
A. Melt B. Dry C. Solution D. Mechanical
5. The density of polyester is _____
A. 1.4 B. 1.2 C. 2 D. 3.2
6. The stretch ability of lycra is _____
A. 300% B. 50% C. 10% D. 15%
7. The fibre which has fineness below one denier is called as _____ fibres.
A. Ultra fine B. Micro C. Nano D. Macro
8. _____ is an elastomeric fibre
A. Spandex B. Polyethylene C. PLA D. wool
9. _____ is a universal yarn numbering system.
A. Ne B. Nm C. Tex D. Woolen
10. The cotton fibre is dissolved in _____
A. Sulphuric acid B. Phenol C. HCL D. Meta cresol

PART B (10 x 2 = 20 Marks)

11. Define Textile fibre.
12. Why degumming is important in silk processing?
13. State the physical properties of modal fibre.

14. State the significance of spin finish.
15. Give the chemical properties of silk.
16. State the physical properties of Nylon.
17. What are the end uses of super absorbent fibers?
18. What are the constituents of elastomeric fibre?
19. Define Tex count.
20. How to differentiate wool from silk fibres by chemical test?

PART C (5 x 14 = 70 Marks)

21. (a) Classify textile fibre based on its origin, chemical type and give two example for each.
(OR)
(b) Discuss in detail the production and cultivation of Jute fibre.
22. (a) Explain in detail the production sequence of a soyabean fibre and state their properties.
(OR)
(b) Explain the manufacturing process of Nylon 6 from its monomer.
23. (a) Give a brief account on physical and chemical properties of viscose fibre.
(OR)
(b) Discuss the biological, thermal and optical properties of wool fibre.
24. (a) Discuss the properties of the following fibres
 - (i) PLA (7)
 - (ii) Flame retardant fibres (7)(OR)
(b) Discuss in detail the application of super absorbent fibres in medical field.
25. (a) Give a brief account on systematic way of identifying a unknown fibre.
(OR)
(b) Convert 50s Ne to tex and Nm count. (7+7)
