

**B.TECH. DEGREE EXAMINATIONS: MAY / JUNE 2011**

Second Semester

**TEXTILE TECHNOLOGY (FASHION TECHNOLOGY)**

FTY101: Fibre Science

**Time: Three hours**

**Maximum Marks: 100**

**Answer ALL Questions**

**PART A (10x1 = 10 Marks)**

1. \_\_\_\_\_ is removed in degumming of silk filament.  
A. Sericin      B. Keratin      C. Fibroin      D. Glucose
2. The natural twist present in cotton fibre is known as \_\_\_\_\_.  
A. Convolution      B. Folds      C. Scales      D. Striations
3. \_\_\_\_\_ is a regenerated protein fibre.  
A. Wool      B. Silk      C. Caesin      D. Jute
4. The process of introducing bulk on the filament is  
A. Decatising      B. Retting      C. Texturisation      D. Mercerization
5. The moisture regain of cotton is \_\_\_\_\_  
A. 4%      B. 8%      C. 12%      D. 2%
6. The melting temperature of polyester is \_\_\_\_\_  
A. 220°C      B. 100°C      C. 150°C      D. 300°C
7. The fibre which has the minimum diameter is \_\_\_\_\_ fibre.  
A. Micro      B. Nano      C. Macro      D. Natural
8. \_\_\_\_\_ fibre dissolves in water.  
A. Acrylic      B. Polyester      C. PLA      D. Carbon
9. \_\_\_\_\_ is an indirect yarn numbering system.  
A. Ne      B. Dtex      C. Tex      D. Denier
10. The Polyester fibre is dissolved in \_\_\_\_\_  
A. Sulphuric acid      B. Phenol      C. HCL      D. Meta cresol

**PART B (10 x 2 = 20 Marks)**

11. What is meant by bicomponent fibre?
12. Given the chemical structure of cotton fibre.

13. State the objectives of texturisation.
14. What is the importance of spin finish?
15. Give the thermal properties of wool fibre.
16. State the physical properties of Polyester fibre.
17. Mention the applications of High Tenacity High Modulus fibres.
18. What are the constituents of elastomeric fibre?
19. How wool is differentiated from silk fibres by chemical test?
20. Define English Count, Ne

**PART C (5 x 14 = 70 Marks)**

21. a) Classify natural and manmade fibres. Give the essential and desirable properties of fibres.

**(OR)**

- b) Discuss in detail the production sequence of silk filament from cocoon.

22. a) Explain in detail the production sequence of modal fibre and state their properties.

**(OR)**

- b) Discuss in detail the production sequence of polyester fibre.

23. a) Give a brief account on physical, chemical and biological properties of wool.

**(OR)**

- b) Discuss in detail physical and chemical properties of Nylon6.

24. a) Discuss the properties of the following fibres

(i) PLA fibre (5)

(ii) Ultra fine fibres (5)

(iii) Flame retardant fibres. (4)

**(OR)**

- b) Discuss in detail the properties of super absorbent fibres and give their applications in medical and hygiene field.

25. a) Discuss any three ways in which textile fibres can be identified with examples.

**(OR)**

b) (i) Define tex, denier and metric count (7)

(ii) Convert 100s Ne to tex and denier. (7)

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