



**B.TECH DEGREE EXAMINATIONS: JUNE 2015**

(Regulation 2009)

Second Semester

**FASHION TECHNOLOGY**

FTY101: Fibre Science

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. The natural twist present in cotton fiber is known as
  - a) Convolutions
  - b) Scales
  - c) Folds
  - d) Stirations
2. Retting is related to
  - a) Silk fiber
  - b) Wool fiber
  - c) Cotton fiber
  - d) Jute fiber
3. Sodium Xanthate is relevant to
  - a) Acetate rayon
  - b) Viscose rayon
  - c) Cuprammonium rayon
  - d) Cotton
4. Texturisation imparts .....to the synthetic fibres.
  - a) Strength
  - b) Artificial crimp
  - c) Elongation
  - d) Stirations
5. Density of silk fiber is
  - a) 1.14
  - b) 1
  - c) 1.55
  - d) 1.34
6. The melting temperature of Nylon 6.6 is
  - a) 215°C
  - b) 220°C
  - c) 120°C
  - d) 260°C
7. The following fiber has highest elongation %
  - a) Lycra
  - b) Wool
  - c) Nylon
  - d) Cotton

8. ....fiber dissolves in water.
- |           |           |
|-----------|-----------|
| a) Carbon | b) PLA    |
| c) PVA    | d) Cotton |
9. One hank is
- |              |              |
|--------------|--------------|
| a) 120 yards | b) 480 yards |
| c) 840 yards | d) 420 yards |
10. The chemical which dissolves polyester fiber is
- |                   |                |
|-------------------|----------------|
| a) Phenol         | b) HCL         |
| c) Sulphuric acid | d) Meta cresol |

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

11. List essential properties of textile fibres.
12. State the physical properties of wool fiber.
13. What is the raw material used for the manufacture of modal and casein fibers?
14. What is the importance of texturisation?
15. State the chemical properties of nylon.
16. Give some example for regenerated and modified fibers.
17. What is Nano fiber?
18. State the properties of PLA fiber.
19. Define yarn count.
20. Convert 50<sup>s</sup> Ne to Tex.

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

21. a) Discuss in detail the essential and desirable properties of textile fibers.

**(OR)**

- b) How jute fibre is extracted from its plant? Explain each process.

22. a) Explain in detail the production sequence of viscose rayon filament.

**(OR)**

- b) Discuss in detail the manufacturing process of polyester filament from petroleum byproducts.

23. a) Give a brief account on physical, chemical and thermal properties of silk fiber.

**(OR)**

b) Discuss the properties of the fibres. (a) Cotton (b) Casein

24. a) Discuss the properties and end uses of PLA fiber and elastomeric fibers.

**(OR)**

b) Discuss in detail the properties and applications of the following fibres.

(a) Super absorbent fibers (b) High temperature flame retardant fibres.

25. a) Convert  $80^s$  Ne and  $120^s$  Ne to Denier and Metric count.

**(OR)**

b) Discuss in detail the different techniques of identification of a textile fiber.

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