Register Number:……..

B.TECH DEGREE EXAMINATIONS NOV/DEC 2012

Second Semester

FASHION TECHNOLOGY

FTY101: Fibre Science

Time: Three Hours **Maximum Marks:100**

Answer ALL Questions:-

PART A (10x1=10 Marks)

1. Textile fiber length:diameter ratio will be around

A. 1:1000 B. 1000:1 C. 10:1 D. 100:1

2. Retting is the process used for ----------

A. Silk B. Wool C. Jute D. Viscose

3. Which of the following is not a synthetic fibre

A. Nylon B. Polyester C. Viscose D. Acrylic

4. Texturisation is the process done to

A. Increase strength B. Improve evenness

C. Improve absorbency D. Introduce crimp

5. What happens to the Viscose when it is approached to fire

A. Melts B. No reaction C. Starts Burning D. Forms bead

6. The Melting point of polyester fibre is

A. 280^0 C B. 450^0 C C. 180^0 C D. 1200^0 C

7. Which of the following is a high tenacity fibre

A. Nylon-66 B. Kevlar C. Linen D.Spandex

8. ---------- is a mineral fibre

A. Modal B. Tencel C. Carbon D. Nylon

9. The 4.2 micronaire of cotton is equivalent to

A. 42 denier B. 4.2 denier C. 150 denier D. denier

10. Specific volume of cotton fibre is ---------- cm^3 /g

A. 1.33 B. 2.5 C. 2.2 D. 1.54

PART B (10 x 2 = 20 Marks)

11. What are the essential properties that a textile fiber should posses?

12. Differentiate between staple fibre and filament yarn.
13. Name any two regenerated protein fibers.
14. Mention the prime monomer that is used in the polymerization of Acrylic fiber.
15. State the biological and thermal state of Cotton and Kevlar fibers.
16. Define moisture regain of textile fibres.
17. Mention two examples of flame retardant fibers?
18. What is the main characteristic of a super absorbent fiber?
19. Why silk appears lustrous?
20. What is the solvent used for nylon in the solubility test?

PART C (5 x 14 = 70 Marks)

21. a) Discusses in detail about the cultivation of cotton fibre.

(OR)

b) Describe the effect of crystallinisity and orientation on the properties of fibers.

22. a) With a flow chart explain the manufacturing process of Viscose Rayon.

(OR)

b) Explain the steps involved in the production of Acrylic fibres.

23. a) Mention certain special characteristic of in-organic fibres.

(OR)

b) Explain in detail the physical, Biological, Chemical and Optical properties of Kevlar and Lyocel fibres.

24. a) Elaborate on the important properties of PLA and Carbon fibres.

(OR)

b) Explain the uses of super absorbent fibres in medical and in Hygienic applications with examples.

25. a) Discuss in detail the various testing methods to identify silk and jute fibres.

(OR)

b) Discuss in detail the various testing methods to identify polyester and Viscose fibres.

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