KUMARAGURU
college of technology
character is life

Register Number: ……

B.TECH. DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2013)

Second Semester

FASHION TECHNOLOGY

U13FTT201 : Fibre Science and Yarn Technology

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

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Natural silk is a _____
   a) staple fibre b) filament
   c) fruit fibre d) bast fibre
2. The length: Breadth (L/B) ratio of a textile fibre is_____
3. Spin finish applied to synthetic fibre is to _____
   a) increase weight b) provide surface lubrication
   c) increase strength d) increase uniformity
4. Lycra is a brand name of _____ fibre.
5. The main function of blow room is _____
   a) contamination removal b) Mixing and Blend
   c) Short and long fiber removal d) opening and cleaning
6. _____ is the process of removing short fibre in cotton spinning.
7. Perforated front roller is used in _____ spinning system.
   a) Siro b) Solo
   c) Compact d) open end
8. _____ is the process of attenuating worsted fibers and making them parallel by using a gill box while combing
9. Normally sewing thread is a _____ ply yarn
   a) 2 b) 3
   c) 4 d) 10
10. One Hank is equal to approximately _____ meters

PART B (10 x 2 = 20 Marks)
(Not more than 40 words)

11. List any four desirable properties for a textile fibre.
12. Draw the cross- and longitudinal section of cotton fibre.
13. List the raw materials used for production of polyester fibre production.
14. What are the objectives of texturisation?
15. What is ginning?
16. Compare the tensile behavior of ring and rotor yarns.
17. Differentiate between woollen and worsted yarns.
18. List any four advantages of compact yarns.
19. State the advantages of TFO.
20. List any four advantages of ply yarn over single yarn of equivalent count.

PART C (5 x 14 = 70 Marks)
(Not more than 400 words)

Q.No. 21 is Compulsory

21. Elaborate on the essential and desirable properties of textile fibres.

22. a) Enumerate the various steps of manufacturing polyester using TPA route.

(OR)

b) (i) Discuss on the production of nano-fibres with neat sketches. (8)

(ii) Explain the application of synthetic fibres in medical and hygiene applications. (6)

23. a) Explain the working principles of carding machine with neat sketches.

(OR)

b) Explain the working principle of air-jet spinning with neat sketches.

24. a) Explain the principle of Siro spinning with neat sketches.

(OR)

b) Explain the sequence of process in woollen and worsted spinning.

25. a) Explain the working of ring doubler with neat sketches.

(OR)

b) (i) Discuss the principle and working of assembly winding. (8)

(ii) Enlist any three faults in cones and their causes. (6)

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