Reg. No. : | | | | | | | | | | | |

S 4040

B.E./B.Tech DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Second Semester

Textile Technology (Fashion Technology)

FT 1152 — YARN MANUFACTURE

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Name any four animal fibres.

2. Define denier.

3. Mention the importances of mixing.

4. How is the cleaning efficiency of blow room line is measured?

5. What are the actions carried out by carding?

6. Give the concept of removing neps in carding.

7. Why doubling is required at spinning preparatory?

8. What are the improvements in yarn characteristics rendered by combing?

9. Mention the process carried out by Roving frame.

10. List out the machines used for doubling operation.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Compare the synthetic staple fibre and filament for characteristics and applications.

(ii) Define English count and Tex system of yarn numbering and relationship between them.

(iii) Compare the tensile property of cotton, viscose and wool.

Or

(b) What are the requirements of textile fibres and filaments? Explain them with examples.

12. (a) With neat diagram, explain the concept of opening and cleaning in step cleaner.

Or

(b) With neat diagram, explain the working of Scutcher.

13. (a) Explain the concepts of point to point and point to back wire point action in card. Also give the profile of wire used in the card cylinder. (12 + 4)

Or

(b) (i) The draft given at the card is 100. The linear density of lap is 500 g/m. Calculate the hank of the sliver, if the waste removed at the card is 5%. (6)

(ii) Explain the mechanism of modern chute feed system. (10)

14. (a) With neat sketch, explain the working principle of a modern comber.

Or

(b) List out the important lap forming machines. Explain the functions of any one of the super lap former. (4 + 12)

15. (a) State about the roles of ring and traveller. Justify how real twist and false twist are achieved in speed frame. (6 + 10)

Or

(b) (i) Elaborate the processes involved in rotor spinning system. (10)

(ii) Calculate the twist per inch present in the yarn, if the spindle speed is 20000 rpm, the delivery roller speed is 210 rpm and its diameter is 27 mm. (6)

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