C 3241

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Fourth Semester

Textile Technology (Fashion Technology)

FT 1252 — FABRIC MANUFACTURE

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the importance of sizing process.

2. In point form, compare the advantages and disadvantages of mechanical and electronic yarn clearers.

3. List out the primary motions of loom.

4. Name the different types of weft Insertion systems known to you.

5. Briefly outline the types of cones used to feed knitting machines and compare them with the types of cones used to feed warping machines.

6. Name the different types of cams used in knitting machines and list their advantages and disadvantages.

7. What is a pattern wheel?

8. In point form, give the differences between weft and warp knitting machines.

9. What are non-woven fabrics?

10. Name some of the applications of non-woven fabrics known to you.

PART B — (5 × 16 = 80 marks)

11. (a) Describe the construction and functioning of a modern sizing machine and describe one type of size recipe used for cotton warp.

Or

(b) Describe the construction of a sectional warping machine and how it is used to prepare a striped warp.

12. (a) Describe the components and functioning of a shuttle type automatic loom. What drawback of the shuttle loom led to the development of shuttleless weaving?

Or

(b) Name the different types of mechanisms available for producing a fabric with a mixed weft and describe one of these mechanisms in detail.

13. (a) Name the different types of warp and weft knitting machines known to you and describe the construction of the different types of fabrics that can be produced on these systems.

Or

(b) Write short notes on :

(i) Types of knitting cams

(ii) Different types of needles

(iii) Dimensional stability of knitted fabrics

(iv) Yarn quality requirements for knitting. (4 + 4 + 4 + 4)

14. (a) Name the different methods of storing pattern information and describe one system that uses stored information to produce a patterned knitted fabric.

Or

(b) Explain the principal of warp knitting and contrast it with well knitting. Describe the construction and working of any one type of warp knitting machine.

15.

15. (a) Describe the principal and functioning of any one machine that produces non-woven fabric by thermal bonding process. Discuss the areas of applications of such fabrics.

Or

(b) Describe the principal of the needle punching process, and the working of any one type of loom working on this principle. What are the adjustable parameters in such a loom? What effect has the change of the values of these parameters on the properties of the cloth produced?
