Roll No. ..... Total Pages : 03

Sep-21-00031

B. Tech. EXAMINATION, 2021

Semester III (CBCS)

FABRIC MANUFACTURE—I

TE-304

Time : 2 *Hours* *Maximum Marks :* 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D. Q. No. **9** is compulsory.

Section A

1. Differentiate between Random and Precision Winding. Draw a neat and labelled diagram to explain the yarn path in a modern random winding machine. **15**

2. (a) What do you mean by patterning ? Discuss its causes and remedies. 7½

(b) Explain in detail about Classimat system of yarn faults. 7½

Section B

3. Discuss the working mechanism of a sectional warping machine with a neat figure. Also mention its preferred application area, advantages and disadvantages. 15

4. What are the objectives of Sizing ? Elaborate different zones of a conventional slasher sizing machine with the help of a neat diagram. 15

Section C

5. Discuss in detail about the various types of shedding systems used in weaving. Also mention their relative advantages and disadvantages. 15

6. Draw the flow of yarn on a plain power loom. Discuss different motions of loom briefly. 15

Section D

7. What do you mean by eccentricity of sley ? What are the factors affecting it ? Derive an expression for kinematic movement of sley. 15

8. Differentiate between over-picking and under-picking. Discuss the under-picking mechanism with a neat sketch. 15

(Compulsory Question)

9. (a) State the importance of yarn tensioning in winding.

(b) What is early shedding ?

(c) Discuss the probable reasons of false picking.

(d) State the importance of lifting plan.

(e) Mention different types of creels used in warping.

(f) Write different drying systems used in sizing.

(g) Define Stockport system.

(h) Write an expression for power of picking.

(i) Briefly explain the principle of TFO.

(j) Explain the effect of size add-on on weavability of yarn. 1½×10=15