(h) What is run in per rack ?

(i) What is the significance of tightness factor ?

(j) How does tension in yarn affect the knitting performance ? **10×1.5=15**

Roll No. ..... **Total Pages : 04**

J-21-0162

B. Tech. EXAMINATION, 2021

Semester VII (CBCS)

KNITTING TECHNOLOGY

TE-701

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 weaving and knitting. Compare the warp and weft knitting processes. Classify various types of weft knitting machines. **15**

2. What are the fundamental stitches used in knitting ? Give their characteristics and properties. **15**

Section B

3. Compare the plain, rib and interlock weft knitted structures in terms of the properties, the mode of manufacturing and the uses of each. **15**

4. Explain the working of a V bed flat knitting machine along with the cam mechanism. How are half cardigan and full cardigan structures made on these machines ? **15**

Section C

5. Describe in detail the mechanism and working of an electronic needle selection device used in a knitting machine. **15**

6. Calculate the length in 'meters' of a plain single jersey structure knitted at 16 cpcm and 20 wpcm on a 30″ diameter, 20 gauge machine having 100 feeders. The machine operates for 8 hours at 20 rpm and 90% efficiency. Also calculate the fabric width. **15**

Section D

7. What are the properties of Raschel and Tricot knitted fabrics ? Give their knitting cycle. **15**

8. What are lapping diagrams ? Prepare the lapping diagrams and give the characteristics of the following warp knitted structures : **15**

   (a) QUEENSCORD

   (b) ATLAS.

(Compulsory Question)

9. (a) What is the function of a trick plate ?

   (b) Define Robbing back.

   (c) Give the structure of PUNTO DI ROMA weft knitted fabric.

   (d) Define stitch density in weft knitted structures.

   (e) What is the function of clearing cam ?

   (f) What is spirality in knitted structures ?

   (g) Define shogging motion of guide bar in a warp knitting machine.