Roll No. ..... Total No. of Pages : 2

BT-6/M11 8681

Knitting Technology

Paper—TT-308

Time : Three Hours] [Maximum Marks : 100

Note :— Attempt any FIVE questions in all, selecting at least ONE question from each unit. All questions carry equal marks.

UNIT—I

1. (a) Compare property knitted and woven fabric based on following points :—
   (i) Crease resistance
   (ii) Elastic recovery
   (iii) Thickness
   (iv) Stiffness
   (v) Air permeability. 10
   (b) Explain the knitting cycle of Single Jersey Weft Knitting Machine with Sinker. Illustrate your answer with the help of neat sketches. 10

2. (a) Describe all knitting elements used in weft knitting beside needles. 10
   (b) Explain different parts and their function of a latch needle. Illustrate your answer with the help of neat sketches. 10

UNIT—II

3. (a) Discuss the structure and properties of interlock fabrics. 10
   (b) What do you understand by "Ornamentation" and "Derivatives" of weft knit structures ? Discuss the different means of ornamentation of single jersey weft knit fabrics. 10

4. Define Knit, Tuck and Float stitches and explain the principle of formation of knit, tuck and float with the help of a electronic jacquard. 20

UNIT—III

5. (a) Derive the expressions for Areal Density, Fractional cover and Tightness factor for weft knitted fabrics. 10
   (b) A plain-knitted worsted fabric has a stitch density of 100 stitches/cm^2 and has been knitted from 70 Tex yarn with a stitch length of 5·4 mm. If the fiber density is 1·3 and Ks is 2160, determine the fractional cover. 10

6. (a) Calculate the production of a single jersey weft knitting machine in kg per day. Assume the necessary data you need for calculation. 10
   (b) Calculate areal density (in gsm) of a satin warp knit structure with the following specificatiions : 5 tex nylon filaments yarn, 40 w.p.i., 60 c.p.i., Run in for front guide bar-170 cm and for back guide bar-95 cm. 10

UNIT—IV

7. (a) Make the following 2 guide bar structure on point paper for a Raschel lace fabric :
   FGB 2-0/0-2/2-0/2-4/4-2/2-4//
   BGB 0-0/2-2/0-0/4-4/2-2/4-4// 5
   (b) Explain the structure and properties of the following fabrics :—
   (i) Lock-knit
   (ii) Sharkskin
   (iii) Full Tricot. 3×5

8. Explain knitting cycle of needle for Tricot machine with the help of neat and clean diagram and compare different parts of this machine with Raschel machine. 20