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> KNITTING TECHNOLOGY Paper: TT-308

Time: Three Hours] [Maximum Marks: 100

Note: Attempt five questions in all, selecting at least one question from each section.

SECTION-A

- 1. (a) What are the functions of different cams in the Knitting cam system? Which cam setting effects the loop length in the fabric, and how?
 - (b) What are the functions of a Verge/Sinker? Explain its working with the help of neat diagrams. (10,10)
- (a) Give the classification of knitting machines alongwith their applications.
 - (b) What are the differences between Woven, Weft knitted and Warp knitted structures? (10,10)

SECTION-B

- What are the fundamental stitches used in knitting? How are they prepared? Give the structure and characteristics of these stitches. (20)
- 4. How are the Rib fabrics manufactured? Which type of needle gaiting is used in the rib machine? Explain the cam system of the rib machine with neat figure. What are the properties and uses of these fabrics? (20)

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SECTION-C

- 5. (a) What is the importance of controlling yarn tension in knitting and how does it affect the performance of the knitting machine?
 - (b) What types of fabric defects occur in knitted structures?
 Give their causes and the remedies. (10,10)
- 6. (a) What are the different stages of knitted fabric relaxation? Give the mathematical constants to describe these stages of relaxation.
 - (b) A plain knitted fabric is produced from 60 tex yarn on a machine of 45 cm diameter with 6 needles/cm. Determine the mass per running metre for the fabric in the finished relaxed state. (10,10)

SECTION-D

- 7. Give the lapping diagrams and properties of the following warp knitted structures:
 - Queenscord.
 - (ii) Reverse Locknit.
 - (iii) Satin.
 - (iv) Sharkskin.
 - (v) Atlas.

 $(5 \times 4 = 20)$

 Give the knitting cycle of Raschel knitting machine with neat figures. Also compare the properties of Raschel and Tricot knit fabrics. (20)

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