

313351

24225

03 Hours / 70 Marks

Seat No.

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- Instructions –*
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: 10
- a) State function of sinker on single jersey machine.
 - b) Describe the concept of course length and stitch length.
 - c) Give the classification of knitted fabrics.
 - d) Give the mathematical expression for G.S.M. of weft knitted fabric.
 - e) Define the angle of spirality.
 - f) State the concept of tightness factor with mathematical expression.
 - g) Define the Non-Woven fabrics.

P.T.O.

2. Attempt any THREE of the following: 12

- a) State the features of Rib machine.
- b) Draw the schematic figure of tuck stitch. (One course tuck stitch) State effect of tuck stitch on fabric properties.
- c) Find G.S.M. of knitted fabric, if Cpi is 30 and HPI is 30% stitch length is 0.15 inches, count of yarn is 24^sNe.
- d) Distinguish between the Warp knitting and Weft knitting w.r.t. to machine specification and fabric properties.

3. Attempt any THREE of the following: 12

- a) Draw the Needle arrangement and trick arrangement for 1×1 Rib and 1×1 interlock machine.
- b) Distinguish between the single jersey and double jersey fabric.
- c) Enlist the various defects of knitted fabric and write causes and remedies of any one of them.
- d) State the functions of following elements on warp knitting machines.
 - i) Presser bar
 - ii) Latch wire
 - iii) Pattern drum or Pattern wheel
 - iv) Chain links

4. Attempt any THREE of the following: 12

- a) Explain working of a flat knitting machine with the help of a neat diagram.
- b) Express the diagrammatic notation for following stitches:
 - i) Knit
 - ii) Tuck
 - iii) Miss
- c) Define the following terms in knitting
 - i) Course
 - ii) Hole
 - iii) Needle loop
 - iv) Shinker loop
- d) Calculate the stitch density in sq. meter if CPI of knitted fabric is 20 and WPI of fabric is 25.
- e) Draw lapping diagram for following notations
 - i) 1-0/2-3//
 - ii) 2-3/1-0//

5. Attempt any TWO of the following: 12

- a) State the functions of following elements
 - i) Needle
 - ii) Cams
 - iii) Cylinder
- b) Draw the symbolic notation for following structure
 - i) Single jersey
 - ii) 1 × 1 Rib
 - iii) 1 × 1 Purl
- c) Draw the schematic diagram of Needle punching m/c and label their parts.

6. Attempt any TWO of the following:**12**

- a) Distinguish between the woven and knitted fabric w.r.t. following points,
 - i) Structure
 - ii) Properties
 - iii) M/c features
 - iv) Production rate
 - v) Preparatory processes
 - vi) Labour requirement
 - b) State the concept of following term in warp knitting
 - i) Over lap
 - ii) Under lap
 - iii) Open lap
 - iv) Closed lap
 - v) Stitch length
 - vi) Course
 - c) Give the detailed classification of technical textile.
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