

313351

12425

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 answer 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) Define the course and wales.
  - b) State the concept of face loop and back loop.
  - c) Draw the loop structure of  $1 \times 1$  Rib fabric.
  - d) Draw the symbolic notation for  $2 \times 3$  Rib fabric.
  - e) State the concept of G.S.M. and express its formula.
  - f) State the concept of warp knitting.
  - g) Define the non woven.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Distinguish between single jersey fabric and rib fabric.
  - b) Draw the schematic diagram of 1 course tuck stitch.
  - c) State the concept of tightness factor and express its formula.
  - d) Compare between warp knitting and weft knitting.
- 3. Attempt any THREE of the following:** **12**
- a) State the functions of following elements:
    - i) Needle
    - ii) Cams
    - iii) Fabric spreader
    - iv) Cylinder.
  - b) List the physical property of following fabric:
    - i) S/j fabric
    - ii) Interlock fabric.
  - c) Define the following defects and list its causes:
    - i) Fabric bow
    - ii) Fabric skew.
  - d) State the functions of Needle bar and shinker bar.
  - e) Classify the technical textile.
- 4. Attempt any THREE of the following:** **12**
- a) Draw the Needle arrangement and cam arrangement diagram for rib machine.
  - b) Draw the loop structure of interlock fabric and enlist the features of interlock fabric.
  - c) State the properties of miss stitch and tuck stitch fabric.
  - d) Calculate the G.S.M. of fabric, if knitted fabric is having C.P.I. = 30, WPI = 25, stitch length = 2.00 mm, count = 40' Ne.
  - e) Draw the lapping diagram for:
    - i) 0-1 / 2-1//.
    - ii) 1-0/3-4//.

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

- a) State the concept of:
  - i) C.P.I.
  - ii) W.P.I.
  - iii) Course length
  - iv) Stitch length
  - v) Loop
  - vi) Stitch density.
- b) State the concept of Needle order and cam order with suitable diagram.
- c) Define angle of spirality and write its causes and remedies.

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

- a) Draw the loop structure of following fabric:
    - i) Single jersey
    - ii)  $2 \times 1$  Rib
    - iii)  $1 \times 1$  Rib.
  - b) Explain with sketch the working of Needle punching technique.
  - c) i) State the concept of
    - 1) Overlap
    - 2) Underlap
    - 3) Stitch length in warp knitting.
  - ii) State the properties of laminated fabrics.
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