14115

3 Hours / 100 Marks   Seat No.

Instructions : (1) All Questions are *compulsory*.

(2) Answer each Section on same / separate answer sheet.

(3) Answer each next main Question on a new page.

(4) Illustrate your answers with neat sketches wherever necessary.

(5) Figures to the right indicate full marks.

(6) Assume suitable data, if necessary.

Marks

1. **Solve any FIVE :**   20

(a) Define the warp and weft knitting.

(b) State the various reasons for growth of knitting industry.

(c) State the functions of following element :

(i) Cylinder   (ii) Cams

(d) State the importance of stripper mechanism.

(e) Draw the loop structure of warp knitted fabric.

(f) Give the classification of flat knitting machine.

(g) Define the "Angle of Spriality".

2. **Solve any TWO :**   16

(a) Define and draw the following terms in knitting :

(i) Course   (iii) Face loop

(ii) Wale   (iv) Back loop

(b) Compare the interlock machine with Rib Machine. (eight points)

(c) State the concept of ornamentation of plain knit fabrics and draw symbolic notation for following structure :

(i) La cosle   (ii) Thick Fleece

P.T.O.

3. **Solve any TWO :** 16
   (a) Write a note on purl knitting machine w.r.t. following points :
      (i) Type of cylinder
      (ii) Principle of needle transfer
      (iii) Type of needle
      (iv) Properties of purl fabric
   (b) Draw symbolic and diagrammatic notation for following stitches :
      (i) Knit stitch   (iii) Tuck stitch
      (ii) Purl stitch   (iv) Miss stitch
   (c) Determine the G.S.M. and tightness factor for knitted fabric :
      (i) C.P.I. : 30   (iii) Loop length : 3 mm
      (ii) W.P.I. : 24   (iv) Yarn count : 20 tex.

4. **Solve any TWO :** 16
   (a) State the feature of single jersey machine. Draw the loop structure of it and list the properties of single jersey fabric.
   (b) What is stitch length ? Explain how the stitch length is determined with suitable example.
   (c) State and draw the following terms in warp knitting :
      (i) Overlap   (iii) Open lap
      (ii) Under lap   (iv) Closed lap

5. **Solve any TWO :** 16
   (a) Compare the tricot machine and Rachel machine.
   (b) Enlist the various elements of flat knitting m/c and write their functions.
   (c) Describe defects and remedies in knitted fabrics.

6. **Solve any TWO :** 16
   (a) Give the detail functions of following element in warp knitting :
      (i) Chain link   (iii) Pattern drum
      (ii) Pattern wheel   (iv) Needle bar
   (b) State the importance of following elements in warp knitting :
      (i) Guide bar   (iii) Trick plate
      (ii) Sinker bar   (iv) Latch wire
   (c) Describe in detail various ways to represent warp knitted fabric on paper.
      (Draw the Notations)

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