11920

3 Hours / 100 Marks   Seat No.

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.

Marks

1.   Attempt any FIVE of the following :   **20**

(a)   Compare the woven fabric and knitted fabric.

(b)   State the functions of sinker and draw its diagram.

(c)   Draw the loop diagram of following structure :

(i) 2×1 Rib fabric

(ii) 1×1 interior

(d)   Draw the symbolic notation for

(i)   Knit Stitch

(ii)   Tuck Stitch

(iii)   Buck stitch

(iv)   Miss Stitch

(e) State the concept of G.S.M. and give the mathematical expression for the same.

(f) State the principle of warp knitting with sketch.

(g) List the various elements of warp knitting machine.

2. Attempt any FOUR of the following :   **16**

(a) State the principle of weft knitting with sketch.

(b) Define :

    (i) Course

    (ii) Wale

    (iii) Stitch length

    (iv) Course length

(c) Compare between Rib knitting machine and Interlock knitting machine.

(d) Give the symbolic notation for La-coste structure.

(e) Define tightness factor and state the range of tightness factor for knitted fabric.

(f) State the guide bar movement for overlapping and underlapping in warp knitting.

3. Attempt any FOUR of the following :   **16**

(a) State the difference between multitruck, cams and single truck cam machine.

(b) Describe the needle transfer technique of purl machine with diagram.

(c) Express the line diagram notation for

    (i) 2×1 Purl fabric

    (ii) 1×1 Rib fabric

(d) Calculate the stitch length in mm if wales/10 cm are 50 and course length for 50 wales is 1 meter.

(e) Give the detail classification of warp knitting machine.

(f) Compare between Tricot machine and Raschel machine.

4. **Attempt any FOUR of the following :** 16

(a) Draw the schematic figure of Latch needle and label its parts.

(b) State the difference between truck arrangement of 1×1 interlock machine and 2×2 interlock machine.

(c) State the concept of ornamentation of Interlock fabric and give examples.

(d) Calculate the production in yards/hour if c.p.c.m. is 15 and r.p.m. of cylinder is 30 and total no. of feeders are 108. (Assume eff.)

(e) Distinguish between the flat knitting and circular knitting.

(f) Give the classification of flat knitting machine.

5. **Attempt any FOUR of the following :** 16

(a) State the features of following fabric :

　　(i) Single jersey

　　(ii) Double jersey

(b) Describe with sketch the passage of yarn through single jersey machine.

(c) (i) Draw the diagram for one course tuck stitch.

　　(ii) Give the mathematical expression to find production in pounds/8 hour.

(d) State the merits and demerits of pattern wheel control and pattern drum control mechanism.

(e) Describe with sketch the principle stitches used in warp knitting machine.

(f) State the passage of yarn through flat knitting machine with sketch.

6. **Attempt any FOUR of the following :** 16

  (a) Describe the knitting cycle of any warp knitting machine.

  (b) Describe the method of representation of warp knit fabrics by lapping diagram.

  (c) Draw the schematic figure of knitting cycle of flat knitting machine.

  (d) State the causes and remedies for

    (i) Fabric bow

    (ii) Needle line

  (e) State the important properties of yarn for knitting.

  (f) State the procedure to determine stitch length of given single jersey fabric.

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