17459

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.

Marks

1.   Solve any TEN :   **20**

(a) Define Weft knitting.

(b) List the various zones in circular knitting machine.

(c) State the concept of single feeder and multi-feeder machine.

(d) Define the cylinder gauge.

(e) Classify Knitted fabrics into differ categories.

(f) Draw the loop structure of 1×1 Rib Fabric.

(g) List the different types of double Jersey Fabrics.

(h) List the principle stitches in Weft knitting.

(i) Draw the loop structure of tuck stitch.

(j) Define the stitch length.

(k) Give the formula for G.S.M.

(l) Define the tightness factor.

(m) Define the Warp knitting.

(n) List the object of fabric spreading.

(o) Draw structure of Punto-di-roma.

2. **Solve any FOUR :** **16**

    (a)   Describe the various ways to produce the fabric.

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

    (c)   Enlist the various parts in knitting zone.

    (d)   State the various functions of sinker on single jersey m/c.

    (e)   Compare the Rib with Purl.

    (f)   Enlist the various features of Rib Fabric.

3. **Solve any FOUR :** **16**

    (a)   Draw the loop structure for

        (1) 1×1 Purl fabric

        (2) 2×2 Rib fabric

    (b)   State the effect of tuck stitches on fabric properties.

    (c)   State the concept of Relanit technique.

    (d)   Enlist the various advantages of Relanit technique.

    (e)   State the angle of spriality.

    (f)   Calculate the G.S.M. of knitted fabric, having following parameters :

        (i)   C.P.I : 30

        (ii)   W.P.I. : 20

        (iii) Stitch length : 0.18"

        (iv) Count : 18 NC

4. **Solve any FOUR :** **16**

    (a)   Compare Warp knitting and Weft knitting.

    (b)   Enlist various parts in Raschel m/c.

(c) State various applications of Warp knit fabrics.

(d) State various ways to cut the knitted fabric.

(e) State objectives of pattern making.

(f) Calculate the production of a single jersey weft knitting machine in yard/shift and kgs/shift from following data :

    (i)   Cylinder speed   – 36 rpm

    (ii) Cylinder dia.   – 30"

    (iii) Gauge   – 24 npi

    (iv) Course / inch   – 30

    (v)   Stitch length   – 0.15"

    (vi) Efficiency   – 92%

    (vii) Count of yarn   – 36^s cotton

5. Solve any FOUR : **16**

(a) Define the following terms in knitting :

(i) Course (ii) Wales

(b) Draw the schematic figure of positive feeder. State its importance.

(c) Draw the Needle arrangement figure and trick arrangement figure for Rib machine.

(d) Draw the following designs :

    (i)   La-coste

    (ii) Cross tuck

(e) State the advantages of stripper mechanism.

(f) Enlist the various fabric defects in weft knitted fabric.

6. **Solve any FOUR :** 16

   (a) Define the following term in Warp knitting :

       (i) Overlap

       (ii) Under lap

   (b) State the function of following elements in Warp knitting :

       (i) latch wire

       (ii) pattern wheel

   (c) State the concept of single bar fabrics.

   (d) Give detail classification of flat knitting machines.

   (e) Enlist the various knitting elements in flat knitting machine.

   (f) Enlist the various steps while producing the sample garment.

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