17464

15116

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.

(5) Assume suitable data, if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

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

a) "Knitted fabrics are stretchable." Justify the statement with suitable reasons.

b) Draw and define the knit stitch

c) Draw the loop diagram for

(i) Single jersey fabric

(ii) 1 × 1 rib fabric

d) Express diagrammatic notation for

(i) tuck stitch

(ii) miss stitch

Marks

e) Calculate G.S.M. of a weft knitted fabric having following particulars.

(i) Course/cm = 15

(ii) Wales/cm = 22

(iii) Stitch length = 0.15 inches

(iv) Count of yarn = 20^s Ne

f) Define following warp knitting terms.

(i) Overlap

(ii) Underlap

(iii) Open lap

(iv) Closed lap

g) Enlist various principle stitches used in warp knitting.

h) Draw symbolic notations for following double knit structures.

(i) Punto di roma

(ii) Texi Pique

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

a) State the functions of following parts

(i) Needle

(ii) Sinker

(iii) Cam

(iv) Positive feeder

(v) Creel

(vi) Closed guiding tube

(vii) Fan in creel

(viii) Take up zone

b) (i) Classify the warp knitting machine

(ii) State any four applications at warp knitted fabrics.

c) State the working of flat knitting machine with help of suitable figures.

Marks

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

a) Compare rib knitting with interlock knitted for eight points.

b) (i) Give detail classification for weft knitting machine.

(ii) State the importance of needle butt and explain the need of different butt position in needle.

c) State the features of purl knitting m/c w.r.t.

(i) Type of needle

(ii) Cylinder

(iii) Needle transfer

(iv) Features of purl fabric

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

a) Express the symbolic notations for following structures.

(i) La-coste

(ii) Half-cardigan

(iii) Eight lock structure

(iv) Jersey blister

b) (i) State the features of single jersey fabric.

(ii) Enlist various knitting elements and write there function, used for flat knitting m/c.

c) Calculate knitting m/c production in meter/day and pound/day If knitting m/c running with following particulars.

(i) C.P.I. : 30

(ii) Gauge : 24

(iii) Cylinder dia : 34"

(iv) No. of feeders : 108

(v) R.P.M. : 20

(vi) Efficiency : 85

(vii) Stitch length = 0.15 inch

(viii) Count of yarn - 30^s

Marks

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

a) State the function of following parts in warp knitting.

(i) Needle bar

(ii) Sinker bar

(iii) Presser bar

(iv) Chain link

b) (i) Compare knit stitch with tuck stitch

(ii) State the concept of tightness factor and give its formula.

c) Draw the chain notation and lapping movement diagram for

(i) Tricot stitch

(ii) Atlas stitch

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

a) Explain various methods to represent warp knitted fabric on paper.

b) (i) State the procedure to determine the weight per unit area of knitted fabric.

(ii) Define following terms.

(1) Under lap

(2) Stitch density

c) State the meaning, causes and remedies for following defects

(i) Fabric bow

(ii) Fabric Barre

(iii) Drop stitches

(iv) Fabric skew