17459

21314

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.

(8) Use of Steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. Attempt any <u>TEN</u> of the following: **20**

a) List down various methods of producing fabric.

b) Define course and wale.

c) Draw a diagram of a latch needle and label the parts. Why this needle is called self acting needle ?

d) What is the function of sinker ? Draw diagram of the same.

e) Draw diagram of cam of single jersey machine and label the parts.

Marks

f) Give characteristics of Rib structure. And state the application of Rib fabric.

g) Draw loop diagram of tuck stitch and Draw diagramatic representation of the same.

h) Draw diagramatic representation of cross-tuck.

i) Draw diagramatic notation of Milano-rib structure.

j) State causes of dropped stitches.

k) State the function of presser on tricot knitting machine.

l) State the function of guide bars on warp knitting machine.

m) Draw lapping diagram and chain notation of close loop Atlas lap.

n) State function of pattern drum and chain link on warp knitting machine.

o) State objects of fabric spreading.

2. Attempt any <u>FOUR</u> of the following: **16**

a) Compare properties of knitted and woven fabric with respect to.

i) Stretchability

ii) Air permeability

iii) Stiffness

iv) Dimensional stability

b) State reasons for growth of knitting industry.

c) Classify weft knitting machines into different catagories.

d) Draw loop diagram of 1 × 1 Rib structure. And draw diagramatic notation of the same.

e) Draw loop diagram of technical face side of a single jersey structure. And express the diagramatic notation of the same.

f) Draw loop diagram of float stitch. How it is represented diagramatically ? What is the effect of this stitch on fabric quality ?

Marks

3. Attempt any <u>TWO</u> of the following: **16**

a) Explain knitting cycle on Single Jersey machine with the help of a neat diagram.

b) Give diagramatic representation of the interlock fabric and draw cam arrangement and needle arrangement of Interlock machine.

c) Draw diagramatic notations for following structure:

i) La-coste

ii) Double Pique

iii) Punte-di-roma

iv) Ottoman rib.

4. Attempt any <u>FOUR</u> of the following: **16**

a) State the concept of jacquard with suitable example.

b) What is relanit technique ? List the advantages of the same.

c) Describe the concept of stripper with an example.

d) What is the importance of stitch length ? How the stitch length can be changed on knitting machine and how it affects fabric quality ?

e) Draw loop diagram of Purl structure. Give diagramatic notation of this structure. Draw diagram of needle used on Purl machine.

f) Distinguish between 'Fully fashioned' and 'Cut-stitch-shape' Knit Garment.

Marks

5. Attempt any <u>FOUR</u> of the following: **16**

a) List down various defects commonly observed in weft knitted fabric. State causes for any two defects.

b) A circular weft knitting machine having 36 feeders is running at 30 rpm. Find out the production of machine in mt/shift of 8 hours if course per inch = 24 and efficiency of the machine is 84%.

c) A single jersey fabric has following particulars

i) Courses per inch = 30

ii) Wales per inch = 24

iii) Count of yarn = 20^s

iv) Length of yarn for 50 stitches = 8.75" (inches) calculate the grams per square yard.

d) What is ‘spirality’ in knitted fabric ? Write the causes of the same.

e) Describe the functionality of ‘Superimpose’ and ‘Flat’ seam for knits.

f) Summarise the ‘Grading rules’ for knits.

Marks

6. Attempt any FOUR of the following: 16

a) List down various elements of Rachel knitting machine and state their functions.

b) Write a note on guide bar with reference to

i) Function of guide bars.

ii) No. of guide bar that can be employed on Rachel warp knitting machine.

iii) Movement of guide bars.

iv) Threading of guide bars.

c) Draw lapping movement of guide bars and corresponding chain notation for

i) Closed lap pillar stitch

ii) Tricot lap

d) Write a detailed note on Applications of warp knit structures.

e) Describe knitting cycle on single bed flat knitting machine with the help of a diagram.

f) Compare Rachel machine with Tricot w.r.t.

i) Machine Gauge

ii) Yarn type

iii) Needle type

iv) No. of guide bars.

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