# 21415 3 Hours / 100 Marks

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

Marks

#### 1. Attempt any TEN:

20

- (a) Define knitting.
- (b) State the function of creel in weft knitting machine.
- (c) List the various types of creel used in circular knitting machine.
- (d) Define feeder density.
- (e) Draw the loop structure of purl fabric.
- (f) Draw the needle arrangement figure for interlock machine.
- (g) Show the trick arrangement figure for Rib fabric.
- (h) Enlist the various weft knitted fabrics.
- (i) Draw the symbolic notation for  $1 \times 1$  Rib fabric.
- (j) State the objects of float stitches in weft knitted fabrics.
- (k) Define tightness factor.
- (l) Calculate the tightness factor of fabric, if knitted fabric knit from 40's Ne and having loop length of 3 mm.
- (m) Define fabric bow.
- (n) State the concent of block pattern.

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diameter 30 inch.

#### 2. **Attempt any FOUR:** 16 Compare knitted fabrics with woven fabrics. (a) (b) State the advantages and disadvantages of side creel. State the characteristics of Rib fabrics. (c) (d) Draw the diagrammatic notation for (i) $1 \times 1$ interlock fabrics (ii) $2 \times 2$ purl fabrics. Explain the need of jacquard with example (e) Calculate the G.S.M. of knitted fabric. (f) C.P.I. - 30(i) (ii) W.P.I. - 40(iii) Stitch length – 3 mm (iv) count - 30 Ne**3. Attempt any FOUR:** 16 Define the following term. (a) (i) course length (ii) face loop Draw the schematic figure of latch needle. (b) (c) Compare the interlock fabrics with Rib fabrics. Draw the symbolic notation for (d) (i) satin thick fleece (ii) State the importance of stitch length. (e) (f) Calculate the total No. needles if machine gauge is 24 E and cylinder

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### 4. Attempt any FOUR:

16

- (a) Define and draw the following terms:
  - (i) stitch length
  - (ii) purl loop
- (b) State the objects of fabric spreader
- (c) State the function of following parts in purl knitting machine.
  - (i) needle
  - (ii) cylinder
  - (iii) slider
- (d) State the concept of design, needle order and cam order.
- (e) State the concept of plush fabric.
- (f) Calculate the production in yards / hrs if knitting machine running with
  - (i) R.P.M. 30
  - (ii) total no. of feeder 108
  - (iii) C.P.I. 30

## 5. Attempt any FOUR:

**16** 

- (a) State the advantage of Relanit technology.
- (b) Compare warp knitting and weft knitting.
- (c) Draw the lapping movement for following chain notation:
  - (i) 0-1/2-1//
  - (ii) 1 0 / 1 2 / /
- (d) State the any four application of warp knit fabrics.
- (e) State the function of following parts:
  - (i) Needle bar
  - (ii) Pressure bar
- (f) State the object of fabric spreading.

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### 6. Attempt any FOUR:

**16** 

- (a) Give the detail classification of flat knitting Machine.
- (b) State the concept of single bar fabrics.
- (c) Enlist the properties of warp knitted fabrics.
- (d) Draw and define the warp knitting.
- (e) State the object of cutting department.
- (f) List the care to be taken while producing the sample knit garments.