

17464

16117

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any TEN of the following:** **20**
- Define courses and wales.
 - Draw neat sketch of beard needle and label its parts.
 - State the function of sinker?
 - Give classification of weft knitting?
 - Draw close loop and face loop?
 - Draw the structures of single jersey fabric.
 - Define tightness factor with formulae.
 - Define overlap and underlap.
 - Give applications of warp knit fabrics.
 - Define warp knitting.
 - Enlist various knitting elements of tricot warp knitting machine?
 - Write classification of flat knitting.
 - Enlist various basic properties of yarn required for knitting.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) (i) Differentiate between warp and weft knitting.
 - (ii) Differentiate between woven and knitted fabrics.
 - b) Describe different types of knitting needle with neat sketch.
 - c) State the features of single jersey machine.
- 3. Attempt any TWO of the following:** **16**
- a) Describe knitting action of rib knitting with neat sketch.
 - b) Enlist various plain knit fabrics. Explain any two of them.
 - c) State the features of warp knitted fabric and draw its loop structure? Explain the term open lap and closed lap.
- 4. Attempt any TWO of the following:** **16**
- a) State the functions of various knitting elements of twist warp knitting machine with neat sketch?
 - b) Explain yarn path of flat knitting machine with neat sketch.
 - c) Enlist and explain various types of defects and write their remedies in knitted fabrics.
- 5. Attempt any TWO of the following:** **16**
- a) Differentiate between Tricot and Raschel machine?
 - b) Enlist various double knit structure. Explain any two of them?
 - c) Calculate the production of knitted fabric in terms of pounds per hours and meters / hours from following particulars:
 - (i) Machine speed - 20 rpm
 - (ii) Number of needles - 490
 - (iii) Stitches per foot - 72
 - (iv) Number of feeders - 12
 - (v) Yarn count - 25 Ne
 - (vi) CPI - 24
 - (vii) WPI - 29

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

- a) Describe knitting action of Raschel machine with neat sketch.
 - b) Differentiate between single jersey and double jersey fabric.
 - c) (i) A single jersey fabric is made on a machine with 2000 needles with 28 courses per inch from 20^s cotton count yarn and 70 stitches per foot. Calculate weight per linear yard?
(ii) Calculate production in kg per hour of circular weft knitting machine from following particulars.
 - 1) No. of feeders - 30
 - 2) Speed - 25rpm
 - 3) Stitch length - 0.15inch
 - 4) No. of needles - 610
 - 5) Machine efficiency - 84%
 - 6) Yarn count - 18^s
 - 7) CPI - 26
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