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12526

3 Hours / 70 Marks

Seat No.

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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 FIVE of the following :** **10**
- a) State the concept of warp and weft.
 - b) State the concept of interlacement with schematic diagram.
 - c) Give the mathematical expressions for “Tex” and “denier” system.
 - d) State the objects of warp winding process.
 - e) List any two defects in winding packages.
 - f) State the concept of ‘gain’ in winding.
 - g) Define the ‘knot factor’.

P.T.O.

2. Attempt any THREE of the following :**12**

- a) Define the following terms,
 - i) Woollen count
 - ii) Worsted count
 - iii) English count
 - iv) Metric count
- b) Describe the working of Random winding with schematic figure.
- c) Define the term
 - i) Traverse ratio
 - ii) Coil angle
 - iii) Winding speed
 - iv) Traverse length
- d) Write the causes and remedies for package defects
 - i) stitches
 - ii) soft package

3. Attempt any THREE of the following :**12**

- a) Draw the detailed flow chart for conversion of yarn to fabric for plain woven fabric.
- b) Convert the following yarn count into its equivalent tex system.
 - i) 40 Ne
 - ii) 60 Ne
 - iii) 120 Ne
 - iv) 20 Ne
- c) Distinguish between the parallel and cross wound package.
- d) Calculate clearing efficiency of clearer if it removes 50 faults out of 100 faults per meter of yarn

4. Attempt any THREE of the following : 12
- a) Distinguish between the drum winding machine and precision winding machine.
 - b) State the functions of yarn clearer and list down various yarn clearer uses.
 - c) Explain the working of yarn clearer with suitable diagram.
 - d) Distinguish between the disc tensioner and gate type of tensioner.
 - e) State the concept of objectionable faults and list any four objectionable yarn faults.
5. Attempt any TWO of the following : 12
- a) Determine the yarn count in Ne if lea of 120 yards is having the weight of 4 grams.
 - b) Describe the process of yarn traverse of winding machine with figure.
 - c) Describe the working of any yarn clearer with sketch.
6. Attempt any TWO of the following : 12
- a) Draw the classimat - II chart for different yarn defects.
 - b) Define the following defects in yarn
 - i) Thick place
 - ii) Thin place
 - iii) Neps
 - c) Calculate the production of winding machine in kg/day if m/c is running with following parameters,
 - i) Drum speed = 900
 - ii) Drum diameter = 3"
 - iii) No. of drums / m/c = 120
 - iv) Yarn count = 40 Ne
 - v) Efficiency = 85%
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