11920

3 Hours / 70 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 :** 10

   (a) Classify looms into different catagories.

   (b) Define 'Count'. Give an expression for the same.

   (c) Define the objectionable faults.

   (d) Define Tex.

   (e) Define Denier.

   (f) List down end uses of winding packages.

   (g) State objects of warp yarn winding.

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

   (a) Draw a flow chart for conversion of cotton yarn into fabric.

   (b) Define Tex and Denier. Give an expression for the same. State the relation between them.

    (c)   Explain different types of yarn feed and delivery packages used on winding machines.

    (d)   Describe the passage of yarn through winding machine with the help of a neat diagram.

    (e)   State function of tensioners on winding machine. Draw diagrams of all types of tensioning devices.

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

    (a)   (i)   Define 'Metric count' and 'French count'. Give an expression for the same.

          (ii)   A 40^s cotton count package weighs 2 kg. Find the length of yarn it contains.

    (b)   List down different types of faults on ring spun yarn.

    (c)   Describe various salient features of drum winding.

    (d)   Describe various methods of yarn traversing used on winding machine.

    (e)   Calculate the production per shift of 8 hours of winding machine working with following particulars :

          (i)   Diameter of drum = 3″

          (ii)   RPM of drum = 3000

          (iii)   Count of yarn wound = 30^s

          (iv)   No. of Spindles = 50

          (v)   Efficiency of winding machine = 72%

4. **Attempt any THREE :**   **12**

    (a)   Explain feature of classimat V.

    (b)   (i)   Define worsted count. Give expression for the same.

          (ii)   A cone of worsted yarn count 24^s weighs 2.00 kg., Find the length of yarn it contains.

    (c)   Describe salient features of precision winding.

    (d)   Describe various types of yarn cleavers used on winding machine.

5. **Attempt any TWO :** 12

   (a) State objectives of various weaving preparatory processes.

   (b) Compare precision winding machine with drum winding machine.

   (c) Define following terms

      (i) Traverse length

      (ii) Traverse ratio

      (iii) Coil angle

      (iv) Wind angle

      (v) Scroll of drum

      (vi) Gain

6. **Attempt any TWO :** 12

   (a) Describe various methods of joining yarn.

   (b) Explain in detail the procedures for assessment of performance of yarn clearer.

   (c) (i) List down various uses of winding packages.

      (ii) List down various winding package faults. State causes and remedies of any two faults.

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