11819

3 Hours / 70 Marks   Seat No. ☐☐☐☐☐☐☐☐

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 FIVE :**   **10**

(a)   Define English count with formulae.

(b)   Define Tex count with formulae.

(c)   Classify looms into various categories.

(d)   State the objectives of winding.

(e)   Classify the winding machines.

(f)   Explain the function of tensioners on winding machine.

(g)   Enlist various winding package faults.

2.   **Attempt any THREE :**   **12**

(a)   Differentiate between direct and indirect yarn numbering system.

(b)   Explain any two winding package defects with its causes and remedies.

(c)   Enlist various types of tensioners. Explain any one of them in details.

(d)   Draw neat labelled sketch of passage of yarn through Drum winding machine.

3. Attempt any THREE :   **12**

   (a) Differentiate between drum and precision winding machine.

   (b) Explain the principle of splicing.

   (c) Explain different types of winding packages.

   (d) Calculate the equivalent English count for 30 Tex and 15 Nm.

4. Attempt any THREE :   **12**

   (a) State the salient features of drum winding machine.

   (b) State the function of yarn clearer. Also enlist various types of yarn clearing devices.

   (c) Explain the significance of objectional faults.

   (d) Explain knot factor and clearing efficiency.

   (e) State objectives of various weaving preparatory processes.

5. Attempt any TWO :   **12**

   (a) Explain the process flow for conversion of yarn to fabric.

   (b) Explain working of the precision winding machine with neat sketch.

   (c) Define the following counts :

      (i) Metric

      (ii) Denier

      (iii) Woolen

6. Attempt any TWO :   **12**

   (a) Explain charts II & V for classimat faults.

   (b) Calculate the production of winding machine in kg/shift from the following data :

      (i) Drum Speed : 800 rpm

      (ii) Drum diameter : 3 inches

      (iii) Yarn count : 40 Ne

      (iv) Efficiency : 90%

      (v) Number of spindles (positions) – 50

   (c) Explain the following winding parameters :

      (i) Traverse ratio

      (ii) Coil angle

      (iii) Gain

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