

22246

23124

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) 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) Define warp and weft.
- (b) Define yarn numbering system. List down various yarn numbering systems.
- (c) State the objects of winding process.
- (d) List down the different parts of winding machine.
- (e) List down different types of tensioner.
- (f) List down different types of Knots used for joining yarn.
- (g) Define objectionable faults.



- 2. Attempt any THREE of the following :** **12**
- (a) Select the process sequence for Denim fabric.
  - (b) Calculate Tex number of yarn having 16000 yard length and one pound weight.
  - (c) Explain any two faults in ring spun yarn.
  - (d) Distinguish between spindle and drum driven winding machine.
- 3. Attempt any THREE of the following :** **12**
- (a) Illustrate with neat sketch gate type tensioner.
  - (b) Calculate production in kg per shift per spindle of winding machine having 900 mpm speed working with 88% efficiency for 60 Ne yarn.
  - (c) Classify various looms.
  - (d) Calculate French count of yarn weighing 900 grams of 120000 meter length.
- 4. Attempt any THREE of the following :** **12**
- (a) State the end uses of the winding package.
  - (b) State the function of unwinding accelerator in winding machine.
  - (c) Give uster classimat chart-V.
  - (d) State the salient features of precision winding machine.
  - (e) Define metric and linen yarn number with expression.
- 5. Attempt any TWO of the following :** **12**
- (a) Describe the passage of yarn through Drum winding machine with neat labelled diagram.
  - (b) Distinguish between mechanical and electronic yarn cleaner.
  - (c) Define traverse ratio, winding angle and coil angle.

**6. Attempt any TWO of the following :****12**

- (a) Convert 100 Ne (English count) into Tex, Denier and Metric yarn number.
  - (b) Draw outline sketch of different feed yarn package and delivery packages of winding machine.
  - (c) Calculate number of winding machines of 60 spindles required in industry per day to produce 6000 kgs of 20 Ne yarn at 85% efficiency working with 800 mpm delivery speed.
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