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21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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 of the following:** **10**
- a) State the objects of warping.
- b) State the function of reed in warping machine.
- c) State the functions of lease reed in sectional warping.
- d) Classify the various warping process.
- e) Explain the importance of immersion roller in sizing.
- f) Define lappers.
- g) State the concept of size-add-on.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) State the advantages of indirect warping process.
 - b) State the importance of stop motion in warping. Also explain its effect on beam quality.
 - c) Draw a neat labelled sketch of passage of warp yarn through ordinary beam warping machine.
 - d) State the salient features of modern sectional warping machine.
- 3. Attempt any THREE of the following:** **12**
- a) Explain different types of winding package used for warping with their sketches.
 - b) Explain the objectives of sizing.
 - c) Explain the necessity of tensioners in warping. List down various types of tensioners used in warping.
 - d) Draw neat labelled sketch of warp yarn passage through sectional warping machine.
- 4. Attempt any THREE of the following:** **12**
- a) Explain any two size paste properties.
 - b) Draw neat labelled sketch of two cylinder sizing machine.
 - c) Explain the factors effecting size pickup.
 - d) Explain the features of conventional size box with neat sketch.
 - e) Explain the concept of splitting zone in sizing.

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

- a) Explain the method of measure is stretch in sizing. Also explain the importance of stretch in the sizing.
- b) State the concept of migration. Explain the measurement of migration in sizing.
- c) Calculate the production of a direct warping machine in kgs/shift from the following data:
 - (i) Machine speed - 500 m/min
 - (ii) Efficiency - 70%
 - (iii) Count of yarn - 30^s Ne
 - (iv) Number of cones on creel - 400

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

- a) Explain the concept leasing, beaming and creeling for any colour patterns in sectional warping machines.
 - b) Enlist various sizing ingredients. Explain any two of them with examples.
 - c) State the functions of following -
 - (i) Drag roller
 - (ii) Measuring and marking device
 - (iii) Comb
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