

17344

16117

3 Hours / 100 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. Answer any FIVE :**

**20**

- (a) Draw a neat labelled diagram of the 'feed section' of the cording machine and state the function of each part.
- (b) State the differences in the metallic wires of the cylinder and doffer.
- (c) Explain the two types of 'coiling' the silver into the can of the cording machine, with diagram.
- (d) What is the purpose stripping in the cording process and when it is done ? Explain the different methods of stripping.
- (e) Explain the 'pressure bar' drafting system on the draw frame.
- (f) Explain the principle of drafting and doubling in the drawing process.
- (g) What is roller slip ? Where and when does it occur ? What are its causes and remedies ?

**2. Answer any TWO : 16**

- (a) Explain the construction and mounting of the cylinder on the cording machine.
- (b) Explain the two types of clothing on the cord cylinder.
- (c) Explain the construction and working of the flats. State the specifications of flat wire clothing.

**3. Answer any TWO : 16**

- (a) Explain the purpose of grinding in the cording process. Also, explain the different types of grinding rollers used for grinding and state their advantages and disadvantages.
- (b) Explain the main settings on the cording machine.
- (c) Explain the factors that help in transfer of fibres from cylinder to doffer.

**4. Answer any TWO : 16**

- (a) With a neat diagram explain the chute feed system on a modern cording machine.
- (b) Explain the causes of the following defects in the cording process.
  - (i) Cloudy web
  - (ii) Sagging web
  - (iii) Holes or patches in cord web
  - (iv) Bars in cord web
- (c) 400 grains / yd. of temp. is fed to the cord and sliver delivered in 62 grains/yd. What is the draft in the cord ? Also calculate the production of the cord if the 27 doffer is running at 16 rpm and efficiency is 90%.

**5. Answer any TWO :****16**

- (a) Explain the conventional drafting system and its parameters.
- (b) With a neat diagram explain the passage of material on the draw-frame.
- (c) Explain the different top roller weighing systems on the draw-frame.

**6. Answer any TWO :****16**

- (a) What is the function of autolevellers ? Explain the two types of autolevellers based on the control systems with diagrams.
  - (b) Explain the features of a modern draw frame.
  - (c) Calculate the efficiency of a draw-frame in which the actual production for 8 deliveries is 4124 lbs for 40 hours. The 2 inch diameter calendar roller runs at 200 rpm and delivers 50 grains/yard sliver.
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