

22461

11920

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) State the function of cone drums on roving frame.
 - b) List down functions of building mechanism on Roving frame.
 - c) State importance of stop motions on roving frame.
 - d) State functions of following on ring frame:
 - (i) Apron
 - (ii) Spacer
 - e) Give classification of spindle drive.
 - f) State significance of traveller number.
 - g) State functions of building mechanism on ring frame.

P.T.O.

2. Attempt any THREE of the following: 12

- a) Explain the need of differential motion on roving frame.
- b) Calculate production of roving frame in kg/shift of 8 hr from following data:
 - (i) Spindle speed - 850 rpm
 - (ii) T.M. - 1.1
 - (iii) Hank of sliver - 0.15
 - (iv) Draft - 12
 - (v) Efficiency - 84%
 - (vi) No. of spindles / frame - 120
- c) Explain passage of material through speed frame with the help of a neat diagram.
- d) Explain with the help of a neat diagram drafting arrangement on ring frame.

3. Attempt any THREE of the following: 12

- a) Explain with neat sketch electronic building mechanism on roving frame.
- b) Explain in detail various modern developments on speed frame.
- c) Explain with sketches working of twist change gear and draft change gear on roving frame.
- d) Draw diagram of flyer and label the parts. Explain function of each part.

- 4. Attempt any THREE of the following:** **12**
- a) Explain how required roving bobbin shape is obtained while winding on roving frame.
 - b) With a neat diagram explain the passage of material on ring frame.
 - c) Draw diagrams of various types of rings used on ring frame.
 - d) State functions of traveller. List down various points of specification and their significance.
 - e) List down various factors to be considered for selection of traveller.
- 5. Attempt any TWO of the following:** **12**
- a) Explain various causes of end breaks at ring frame. Suggest remedies for the same (any twelve points)
 - b) Explain manual doffing at ring frame. State its limitations. Elaborate advantages of automatic doffing over manual doffing.
 - c) Describe various modern developments on ring frame.
- 6. Attempt any TWO of the following:** **12**
- a) Explain the importance of change places on ring frame. Elaborate your answer with relevant diagrams.
 - b) Calculate the production of a ring frame in kg/shifter of 8 hours from following data:
 - (i) Spindle speed - 18000 rpm
 - (ii) Count of yarn span - 30^s
 - (iii) T.M. - 4.2
 - (iv) No. of spindles / frame - 1008
 - (v) Efficiency - 95%
 - c) Draw diagrams of different types of spindle drives used on ring frame. Describe their relative merits and demerits.
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