

22245

21819

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- 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) Explain importance of essential properties of textile fibre:
 - (i) Length
 - (ii) Strength
 - b) State objectives of carding machine.
 - c) Define:
 - (i) Textile fibre
 - (ii) Man-made fibre
 - d) State the effect of ginning process on cotton fibre.
 - e) List at least six varieties of cotton fibre.

P.T.O.

- f) Calculate percentage increases in short fibre content in lap with following particulars:
- (i) Short fibre content in cotton material = 20%.
 - (ii) Short fibre content in lap sheet = 27.8%.
- g) List the types of wastes produced in blow-room.
- 2. Attempt any THREE of the following: 12**
- a) Classify the textiles fibres.
 - b) Explain with neat sketch feeding devices used in Blow room.
 - c) Give process flow chart for production of combed yarn with input and output material of each process.
 - d) Explain with neat sketch working of 'Axi-flow' cleaner.
- 3. Attempt any THREE of the following: 12**
- a) State objectives of Blow-Room.
 - b) Compare between free flight feed and clamp feed.
 - c) Draw a neat labeled sketch of scutcher machine.
 - d) Explain with neat sketch working of double roller maecharthy ginning machine.
- 4. Attempt any THREE of the following: 12**
- a) State the importance of conditioning of raw material.
 - b) Explain with neat sketch the working of cleanomat.
 - c) Classify yarns into different categories.
 - d) State the importance of baling and pressing of fibre with dimensions and density of American bale cotton.
 - e) A cotton mixing has 4.9% average trash content. The trash in lap is 2.1% whereas the total blow-room droppings are 6.9%. Find the lint loss in percentage.

- 5. Attempt any TWO of the following:** **12**
- a) Explain with neat sketch the working of automatic bale opener “Unimix” machine.
 - b) Calculate production of scutcher machine in kg per shift of 8 hrs if 9" diameter of lap roller running at 10 rpm, delivers a lap of 14 ozs/yd. The working efficiency of machine is 90%.
 - c) Describe with neat sketch the working of ‘Trutzschler Securomat’ with its importance.
- 6. Attempt any TWO of the following:** **12**
- a) Explain the transport of material in blow-room by mechanical transport and pneumatic transport.
 - b) Explain with neat sketch the working of 'Unimix' with importance of mixing of fibres in blow-room.
 - c) The trash content of cotton is 6%, trash in lap is 1.5% and the trash in carding sliver is 0.8%. Find the cleaning efficiency of Blow-room, carding and total cleaning efficiency.
-