

312306

12425

03 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following:

10

- Define Textile Fibres and filament yarn.
- State the objectives of ginning process.
- State the objectives of blow room process.
- Suggest sequence of modern blow room machines you would like to use for processing trashy cotton (trash % - 10%)
- Elaborate functions of Scutcher.
- State the function of the metal detector in blow room.
- State the function of cotton contamination cleaning machine.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Explain the essential properties of textile fibres.
 - b) Explain cultivation of cotton in India.
 - c) Differentiate between hand picking and machine picking.
 - d) Explain the importance of pre-ginning. Also list down various ginning machines.
- 3. Attempt any THREE of the following:** **12**
- a) Explain construction and working of saw ginning machine with neat sketch.
 - b) Draw the flow charts for manufacturing of carded yarn and combed yarn with input and output from each process.
 - c) Explain the need of cotton pressing and baling. Also write down various bale dimension and densities.
 - d) State the factors affecting opening and cleaning in the blow room machineries.
- 4. Attempt any THREE of the following:** **12**
- a) Draw diagrams of various opening devices used in blow room.
 - b) Explain the function of grids with help of a diagram. Also list down the elements of grid. Elaborate how waste extraction can be controlled by change setting of grid.
 - c) Differentiate between conventional and automatic bale openers.
 - d) Explain step cleaner with neat labelled sketch.
 - e) A scutcher has a lap roller of 11 inch diameter and it runs at 10 rpm producing a lap of hank of 0.0013 hk. Find production per shift at 80% efficiency.

5. Attempt any TWO of the following: 12

- a) Explain the need of the transportation. Also explain mechanical and Pneumatic transportations.
- b) Explain the necessity of control of material flow. Also explain step-go-operation with its advantages and disadvantages.
- c) Explain construction and working of Axi-flow cleaner with a neat sketch.

6. Attempt any TWO of the following: 12

- a) Define the following:
 - i) Degree of opening
 - ii) Intensity of opening
 - iii) Cleaning efficiency
 - b) Explain dustex DX machine with a neat sketch.
 - c) State the advantages of automatic mixing machine. Explain Blendomat machine with a neat sketch.
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