

17224

15116

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. Attempt any TEN of the following:** **20**
- a) List down classification of dust.
 - b) List down characteristics of the raw material influencing spinning.
 - c) State the objectives of binning.
 - d) How conditioning of cotton is done? What is its importance?
 - e) Why mixing of cotton is done?
 - f) Give flow-chart for manufacturing cotton yarn.
 - g) Why baling and pressing of cotton is done?
 - h) State the objectives of blow room.
 - i) Define cleaning efficiency of a blow room machine and give an expression for the same.

P.T.O.

- j) Elaborate 'Fibre Stressing Index'.
- k) What is the function of grid bars?
- l) Give classification of opening devices in the blow-room.
- m) List down various adjustments of grid bars to alter % waste extraction.
- n) List down various ways of dust removal.
- o) Write a short note on recycling of cotton.

2. Attempt any TWO of the following: 16

- a) Explain in detail how various yarn properties are influenced by (importance of)
 - (i) Fibre fineness
 - (ii) Fibre strength
- b) (i) Write a detailed note on cultivation of cotton in India.
(ii) Compare mechanical picking of cotton with hand picking.
- c) Describe the principle and working of electronic metal extractor with the help of a neat diagram.

3. Attempt any TWO of the following: 16

- a) Describe the effect of ginning process on fibre properties.
- b) Elaborate different types of 'Feed apparatus.' used in components of blow-room machines.
- c) List down various opening devices used in blow room. Draw and explain working of any two of them.

- 4. Attempt any TWO of the following: 16**
- a) Explain the significance of fibre length and maturity on various yarn properties.
 - b) List down various factors which influence degree of opening, cleaning and dust removal.
 - c) (i) List down five different zones in which blow room machines can be classified. State their significance.
(ii) Write a short note on automatic bale opening machines. State their importance.
- 5. Attempt any TWO of the following: 16**
- a) Describe the working of Maxi-Flow with the help of a neat diagram.
 - b) Explain the construction and working of 'Chute feed system' of any model with the help of a neat diagram.
 - c) Describe the working of Cleanomat (CVT) cleaner with the help of a neat diagram.
- 6. Attempt any TWO of the following: 16**
- a) How dust is removed from cotton in blow room? Which are the methods to do so?
 - b) Explain in detail controlling of material flow in blow room. Discuss the merits and demerits of continuous operation and stop-go operation.
 - c) Describe construction and working of Double Roller Gin with the help of a neat diagram.
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