

# 22580

**23124**

**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**
- State the diameter of merino wool fibre in microns.
  - State the object of worsted carding.
  - Write any four applications of Jute yarn.
  - State the method and importance of silk degumming.
  - Define index of blend irregularity.
  - State the importance of spin finish given to the fibres.
  - Give the process flow charts for polyester / cotton blended yarn.

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- 2. Attempt any THREE of the following :** **12**
- a) Draw the sketch of worsted carding machine and label the parts.
  - b) Give flow chart for producing linen yarn.
  - c) List any four types of silk yarns and give their applications.
  - d) Explain the changes to be made in Blow Room while processing blends of cotton and man made fibres.
- 3. Attempt any THREE of the following :** **12**
- a) Draw the flow chart for worsted spinning.
  - b) Draw the sketch of rectilinear comber used in worsted spinning and label the parts.
  - c) Draw the sketch of gilling machine and label the parts.
  - d) Give the flow chart for Jute yarn manufacturing.
- 4. Attempt any THREE of the following :** **12**
- a) State the flow chart of silk yarn manufacturing from cocoon.
  - b) Describe the method of cultivation of cocoon.
  - c) Describe life cycle of silk worm with flow diagram.
  - d) State the importance of acclimatization of fibres and tinting of fibre before blending.
  - e) Explain the criteria for selection of blend constituents.

- 5. Attempt any TWO of the following :** **12**
- a) Explain various methods of blending at Blow Room.
  - b) State the advantages and disadvantages of blending of cotton and polyester sliver at draw frame.
  - c) List the changes to be made at Ringframe for processing of blends.
- 6. Attempt any TWO of the following :** **12**
- a) Elaborate process parameters and machine parameters for blending wool and acrylic fibers on worsted spinning system.
  - b) State any six properties of wool-polyester blended yarn.
  - c) Suggest processing and machine parameters for wool and polyester blended yarn.
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