

# 17693

21415

2 Hours / 50 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. Answer any SEVEN :**

**14**

- (a) State the fibre characteristics which influence their spinnability and spinning limit.
- (b) What length and deniers of man-made fibres are produced for processing on the cotton system ?
- (c) Explain the importance of crimp in man-made fibres.
- (d) State the objectives of carding man-made fibres.
- (e) What is the importance of segregation in the spinning department for processing man-made fibres and their blends ? State the two methods of segregation.
- (f) List the objectives of Texturing.
- (g) What is the difference between stretch yarns and bulk yarns ?
- (h) State the differences in properties of textured yarns and flat filament yarns.
- (i) Explain the principle of air texturing.
- (j) What is Draw texturing ? State the different methods of draw texturing.

**P.T.O.**

**2. Answer any THREE :****12**

- (a) Explain the stuffer box method of texturing with a neat diagram.
- (b) Write a note on 'Heaters' in the false-twist texturing process.
- (c) Explain the material variables that affect the properties of false-twist textured yarns.
- (d) What are the advantages of draw textured yarns over conventional textured yarns ?
- (e) Explain the different methods of draw texturing with diagrams.

**3. Answer any THREE :****12**

- (a) Explain the different twisting units in false-twist texturing.
- (b) What are the advantages of the air texturing process ? State the applications of air textured yarns.
- (c) What are the advantages and disadvantages of blow-room blending ?
- (d) Explain the improvement in aesthetic value of fabrics by blending with examples.
- (e) Which blending method is used for polyester/cotton blend and polyester/viscose blend and why ?

**4. Answer any THREE :****12**

- (a) Explain the importance of conditioning man-made fibres and state at what relative humidity and for how much time the conditioning is done.
  - (b) Explain the problems faced in cording of man-made fibres.
  - (c) Explain the blending draw-frame with a neat diagram.
  - (d) State the causes of end breaks in spinning of man-made fibres.
  - (e) Explain the importance and construction of the false-twist attachment on the speed frame.
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