

17226

15162

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

Marks

1. Attempt any TEN :

10 × 2 = 20

- (a) Define Maturity Coefficient (MC).
- (b) State burning test for polyester and viscose.
- (c) State any two reasons of Textile testing.
- (d) Define moisture content.
- (e) State the name of fibre sampling method used for taking out fibre sample from
 - (i) Sliver
 - (ii) Yarn
- (f) Define uniformity index with formulae.
- (g) State any two methods of measuring fibre fineness.
- (h) Define 50% span length.
- (i) Draw microscopic view of wool and viscose.
- (j) Define decitex.
- (k) Draw figure of mature & immature fibre.
- (l) Define Neps.
- (m) State any two causes of Neps.
- (n) What is necessity of maintaining standard testing atmosphere ?

- 2. Attempt any FOUR :** **4 × 4 = 16**
- (a) Describe core sampling method.
 - (b) Write causes of biased sample with example.
 - (c) With figure explain squaring method of fibre sampling.
 - (d) What are objects of textile testing ?
 - (e) What are effects of moisture regain on processing ?
 - (f) Define Moisture regain, Humidity, Relative humidity, Absolute humidity, Moisture content. (any four)
- 3. Attempt any FOUR :** **4 × 4 = 16**
- (a) State oil-plate method of measuring fibre length.
 - (b) What is importance **or** technical significance of fibre length ?
 - (c) Draw neat-sketch of Micronaire instrument with label.
 - (d) Define uniformity ratio with formulae and short fibre % & effective length.
 - (e) What is solubility test for cotton, viscose, polyester and wool ?
 - (f) Draw figure of “fibro-sampler” in digital fibro-graph method of fibre length measurement.
- 4. Attempt any TWO :** **8 × 2 = 16**
- (a) What is significance of Trash ? Also give detailed classification of trash.
 - (b) Describe caustic soda swelling method of measuring fibre maturity.
 - (c) Describe comb sorter method of measuring fibre length.
- 5. Attempt any FOUR :** **4 × 4 = 16**
- (a) Define micronaire, millitex, tex and denier.
 - (b) What is cut-weight (Gravimetric) method of measuring fibre fineness ?
 - (c) What is technical significance of fibre maturity ?
 - (d) What is air-flow principle ?
 - (e) What are uses of shirley trash analyser ?
 - (f) Describe Indian cotton grading system.
- 6. Attempt any TWO :** **8 × 2 = 16**
- (a) Give step by step analysis of comb sorter diagram.
 - (b) Describe method of measuring fibre fineness by air-flow method. (Micronair Instrument)
 - (c) Describe differential dyeing method of measuring fibre maturity.
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