

17568

16117

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.
 - (8) Use of Steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. Answer any TEN of the following :

10 × 2 = 20

- (a) State objectives of doubling.
- (b) State the properties of sewing thread.
- (c) State the objectives of fancy doubler.
- (d) State the objective of winding process.
- (e) Why yarn tensioner is necessary in winding ?
- (f) State the objects of waxing.
- (g) Enlist the rotor yarn faults.
- (h) Write the effect of wrapper fibres on rotor yarn properties.
- (i) Explain back doubling. How it helps to improve rotor yarn quality ?
- (j) State the limitations of open end spinning.
- (k) State various application of O.E. yarn.
- (l) State any four properties of rotor yarn.
- (m) State properties of compact spinning.
- (n) State properties of SIRO yarn.

[1 of 2]

P.T.O.

- 2. Answer any TWO of the following :** **2 × 8 = 16**
- (a) With neat sketch describe passage of material through two-for-twister.
 - (b) State the modern features of winding machine.
 - (c) Write the effect of twist direction and twist amount on properties of double yarn.
- 3. Answer any TWO of the following :** **2 × 8 = 16**
- (a) Write the parameters and effect of following on winding process :
 - (i) Traverse length
 - (ii) Traverse ratio
 - (iii) Winding speed
 - (iv) Wind angle
 - (b) Differentiate between mechanical and electronic clearers used in winding.
 - (c) Name various types of fancy yarn. Explain two of them with its characteristics.
- 4. Answer any TWO of the following :** **2 × 8 = 16**
- (a) Differentiate between ring and rotor yarn.
 - (b) With neat sketch, describe passage of material through rotor spinning.
 - (c) With neat sketch describe different types of rotor groove.
- 5. Answer any TWO of the following :** **2 × 8 = 16**
- (a) State modern developments in rotor spinning.
 - (b) State the effect of rotor diameter and rotor speed on rotor yarn properties.
 - (c) With neat sketch describe passage of material through DREF-III.
- 6. Answer any TWO of the following :** **2 × 8 = 16**
- (a) With neat sketch describe Bobtex process.
 - (b) With neat sketch describe passage of material through Air-jet spinning.
 - (c) State the advantages and disadvantages of ring spinning.
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