

17690

21415

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 FIVE of the following :

20

(a) Explain the role and scope for process control in spinning.

(b) Define 'Yarn Realisation' and give its importance.

(c) Discuss the effect of relative humidity and temperature on comber machine performance.

(d) Describe the principle of roller drafting.

(e) How electronic yarn clearing is used to remove yarn faults ?

(f) Give Classmate-II classification of yarn faults.

(g) Discuss in detail :

(i) Machine Productivity Index

(ii) Labour Employment Ratio

2. Attempt any TWO of the following :

16

(a) Describe in detail the method of establishing norms with suitable example.

(b) Explain the principle of Linear programming technique to control mixing quality & cost.

(c) Define Neps. How to control generation of Neps in carding ?

P.T.O.

- 3. Attempt any TWO of the following : 16**
- (a) Explain in detail the records for estimating yarn realization and waste in process.
 - (b) How to evaluate the performance of a Blow Room through cleaning efficiency ?
 - (c) Explain in detail the fractionating efficiency of comber.
- 4. Attempt any TWO of the following : 16**
- (a) (i) Give expression for FQI & CQI and state its importance.
(ii) List norms of mixing quality for different count's.
 - (b) Describe the concept of transfer efficiency in carding.
 - (c) (i) Explain the defects in Roving packages and their remedies (any four).
(ii) How to control stretch % at speed frame ?
- 5. Attempt any TWO of the following : 16**
- (a) Discuss the importance and control of lap regularity and its quality.
 - (b) What are the factors affecting yarn strength ?
 - (c) Discuss the type of yarn faults and package defects in detail.
- 6. Attempt any TWO of the following : 16**
- (a) Define Machinery Audit and what are key variables for process control in spinning ?
 - (b) Discuss the causes, remedies and control for End Breaks in spinning.
 - (c) Describe measure to control quality of splice on winding machine. Also explain how to optimise package quality with respect to all package faults.
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