

- (ix) Write a note on wire profiles of travellers used in ring spinning. 2
- (x) How rotor diameter influences properties of rotor yarn ? 2

Roll No.

Total Pages : 04

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B. Tech. EXAMINATION, 2022

Semester IV (CBCS)

YARN MANUFACTURE-II

TE-403

Time : 3 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt *Five* questions in all, selecting *one* question from each Section A, B, C and D. Q. No. 9 is compulsory.

Section A

1. Why do we do combing ? What is backward feeding and forward feeding at combing ? Explain. 10
2. (a) Write down the sequence of operations of rectilinear comber with diagram. 6

- (b) Discuss modern development in combing with their significance. 4

Section B

3. What is Flyer leading and Bobbing leading principle at fly frame ? Which system of winding is used now-a-days and why ? 10
4. Discuss the mechanism and functions of differential; motions used in roving frame. 10

Section C

5. (a) Discuss the function of ABC ring, traveller clearer, separator and spacer in ring spinning. 5
- (b) Discuss numerous type of ring and traveller combination along with their suitability. 5
6. Draw neat and clean diagram of material passage through ring frame and explain its working principle. 10

Section D

7. Explain the basic principle, construction and working of air jet spinning system. 10

8. What is open end spinning ? Compare properties of ring yarn and rotor spun yarn. 10

(Compulsory Question)

9. (i) Write the correct sequence of forward feed in comber. 2
- (ii) State the functions of separator used in ring spinning. 2
- (iii) Calculate the production speed frame in gms/spindle shift if spindle speed is 1200 rpm and producing a roving of hank 1.0 Ne with 1.2 TM. Assume efficiency of machine is 90%. 2
- (iv) What are the different factors which affect the balloon size ? 2
- (v) How many passages are required between card and comber ? Justify. 2
- (vi) Illustrate main draft, break draft and total draft. 2
- (vii) Write *two* differences between Dref 2 and Dref 3 spinning system. 2
- (viii) Write down the objectives of speed frame. 2