Roll No.....

Printed Pages : 3

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BT-5/D-13

YARN MANUFACTURE–III

Paper–TT-303 A

Time allowed : 3 hours] *[Maximum marks : 100*

Note : *Attempt any five questions taking at least one from each unit.*

Unit–I

1. (a) Find winding tension and balloon tension of a ring frame in terms of different machine and process parameters. 10

(b) Write down the modern developments on ring spinning frame. 10

2. (a) Comment on suitability of large package spinning on ring frame. 10

(b) Critically analyze the factors limiting the production of a ring frame. 10

Unit–II

3. (a) What is microdust ? How does it affect the performance and quality of yarn produced on rotor spinning machine ? What modifications have been made to overcome the problem of microdust ? 10

(b) What are novel spinning systems ? Name the areas of applications of the yarns spun on these systems. What are the advantages and limitations of rotor spinning system ? 5

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(c) What do you mean by twist loss with reference to rotor spinning system ? How can it be measured ? Discuss various factors affecting twist loss. 5

Unit–III

4. (a) With the help of a neat sketch, explain the principle of yarn formation in rotor spinning. Also, mention the range of count spun on this machine. 10

(b) Discuss the twist profile of various segments in rotor spinning machine with a diagram. 10

5. (a) With the help of neat and clean sketch, analyze the mode of yarn formation in DREF Spinning system. 10

(b) Enlist the possibilities and limitations of Friction spinning system. 5

(c) Explain the effect of raw material and process parameter on properties of Friction-Spun yarns. 5

6. (a) Describe the principle involved in the production of yarns by Airjet spinning system. 10

(b) Critically analyze the effect of machine and process parameters on the structure and properties of Airjet-spun yarn. 10

Unit–IV

7. (a) Compare the structure and properties of yarns spun on Airjet, rotor and Friction spinning system. 10

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(b) Discuss different types of compacting devices used in compact spinning system. 10

8. (a) Mention different types of machinaries used for manufacturing fancy yarns. 10

(b) Highlight the basic requirements of sewing thread. Also, describe the manufacturing technology of these yarns giving raw material specification, number of doubling and twist direction. 10