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Unit-II

Roll No.

Printed Pages : 3

BT-5/D-12

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YARN MANUFACTURE-III

Paper-TT-303

Time allowed : 3 hours] [Maximum marks : 100

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

Unit-I

1. (a) How do perfect drafting and actual drafting differ from each other ? Explain citing examples. 10
(b) What is stick-slip phenomenon associated with roller drafting system ? 5
(c) Define transfer efficiency of a card. How is transfer efficiency affected by different operational parameters of a card ? 5
2. (a) State the mechanism of hook formation at different stages from card to draw frame. 10
(b) Discuss the nature of forces experienced by a fibre at different stages of opening and cleaning. 10

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3. (a) Critically analyse the factors those are responsible for twist-loss and twist-gain, with reference to a ring frame. Also, comment on the resultant combined effect of these factors. 10
(b) Discuss the causes of end-breakages on a ring frame and suggest the measures to control end-breakages. 10
4. (a) How can you promote the translation of fibre property into a blended yarn ? 5
(b) Find an analytical expression to determine winding tension in terms of different machine and process parameters of a ring frame. 15

Unit-III

5. (a) Explain the causes of formation of wrapper fibres in open-end spinning. 10
(b) Explain the factors limiting the rpm of a rotor. 10
6. (a) Describe the mechanism of Friction spinning system. 10
(b) Explain the differences in structure of different yarns spun on different spinning systems. 10

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Unit-IV

7. (a) What are the problems associated with the spinning triangle ? Describe a spinning system that almost eliminates the formation of spinning triangle. 10
- (b) What is fancy yarn ? Describe a technique to manufacture fancy yarn. 10
8. (a) How is sewing thread manufactured ? Discuss different types of sewing threads. 10
- (b) Discuss the effect of direction of twist and twisting methods on the properties of a piled yarn. 10