

D 310

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2003.

Fourth Semester

Textile Technology

TT 232 --- SPUN YARN TECHNOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A --- (10 × 2 = 20 marks)

1. What are the defects in ginning process?
2. State the advantages of assymmetric web condensor.
3. Differentiate between over centre and under centre coiling.
4. State the functions of builder mechanism in speed frame.
5. Differentiate between forward feeding and backward feeding in comber.
6. State the importance of flexible bends in carding machine.
7. What do you mean by back doubling in rotor spinning?
8. State the machine variables of air jet spinning.
9. What is the importance of delta-zone in ring frames for quality spinning?
10. Give the stages of operations for yarn folding.

PART B --- (5 × 16 = 80 marks)

11. With suitable diagrams, give a detailed account on the rings and travellers used in ring frames for their profiles, types, requirements and functions.
12. (a) With a neat sketch, explain the principles of fibre separation from Kapas using the sawginning machine.

Or

- (b) Describe the concept of blending delay time. With a neat sketch, explain the working mechanism of a blowroom machine operating on the above principle. (4 + 12)

13. (a) With relevant sketches, discuss in detail the various developments taken place in lickerin region and doffing region of a carding machine.

Or

- (b) Discuss the advantages and limitations of chute feed systems with respect to blow room and carding departments. With a neat sketch, explain the principle of fibre feed in a chute feed system of open-loop type. (4 + 12)
14. (a) (i) With suitable diagram, explain the salient features of a modern drafting system used in draw frames. (8)
- (ii) Write notes on Cots selection and Top roller loadings. (4 + 4)

Or

- (b) With suitable diagrams, give a detailed account on the various developments of a new generation modern combing machine.
15. (a) State the functions of builder mechanism and explain the achievement of the above functions with reference to modern speed frames. (2 + 14)

Or

- (b) Discuss on the preparatory operations for yarn folding. With a neat sketch, explain the principle of twist insertion in two-for-one twister. (4 + 12)
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