

[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2064)

14691

B. Tech 4th Semester Examination

Fabric Manufacture-I (O.S.)

TE-4004

Time : 3 Hours

Max. Marks : 100

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 : Candidates are required to attempt five questions in all selecting one question from each Section A, B, C and D of the question paper and all the subparts in Section E.

SECTION - A

1. (a) Classify various category of yarn faults detected in classimat-II. What are the objectionable faults?
(b) What is patterning? How these are formed? Why these are undesirable in a yarn package? Discuss the various mechanism for preventing patterns in a package.
(c) How do you assess the performance of a winding machine? (5+10+5=20)

OR

2. (a) What is the difference between automatic and nonautomatic winding machine? Which one is more productive?
(b) Describe with the help of a schematic diagram of a automatic winding machine showing the different parts. Discuss the difference between photo electric and capacitance type clearing device. (5+15=20)

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SECTION - B

3. (a) What are the objectives of sectional warping machine. What are the various types of creed used in warping machine?
- (b) What are the factors that influence productivity of warping machine?
- (c) Describe with a neat sketch various parts of a sectional warping machine. (5+5+10=20)

OR

4. (a) Discuss the functions of various ingredients used in sizing of fine cotton yarn.
- (b) Discuss the principle of single end sizing and foam sizing.
- (c) Discuss the modern development in sizing machine with a neat sketch. (5+5+10=20)

SECTION - C

5. (a) Discuss the objective of drawing-in. What are the features of modern drawing-in machines?
- (b) Discuss various types of heald and their uses.
- (c) Why the productivity of handloom is low?
- (d) Discuss the objectives of primary motions. How these motion are given in a handloom? (5+5+5+5=20)

OR

6. (a) Draw the sectional view of a power loom and show its various parts.
- (b) How shedding motion is given in a conventional power loom?

- (c) Discuss the function of the following parts of a power loom—

(i) Crank Shaft (ii) Picker (iii) Sley (iv) take-up roller (v) heald. (10+5+5=20)

SECTION - D

7. (a) Distinguish between positive shedding and negative shedding.
 (b) Discuss tappet shedding mechanism and its limitation.
 (c) What are the possible reason of shuttle fly? (5+10+5=20)

OR

8. (a) With a suitable diagram discuss the mechanism of over-picking in a conventional loom.
 (b) What are the limitation of over picking mechanism?
 (c) How do you increase picking force in overpicking mechanism? (5+10+5=20)

SECTION - E

9. Attempt all the 8 questions:
 (a) What are the disadvantage of mechanical slub catcher?
 (b) What is the function of tensioning device?
 (c) What do you mean by 'splicing'?
 (d) What do you mean by 'lappers'?
 (e) What is the purpose of bunching length in your package?
 (f) What is reed count?
 (g) What is the purpose of auxiliary motion?
 (h) What is sley eccentriciy ratio? (8×2.5=20)