

[Total No. of Questions - 5] [Total No. of Printed Pages - 3]
(2125)

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B. Tech 4th Semester Examination
Fabric Manufacture (OS)

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 & D. Section E is compulsory.

SECTION - A

1. (a) Discuss the need of yarn winding.
- (b) How many types of winding machines do you know? Briefly discuss each type.
- (c) What is pirn winding? Discuss the working of any pirn winding machine. (5+7+8=20)

OR

- (a) Discuss the latest developments in winding machine.
- (b) Discuss the basic features of Auto cover and Barbar colman winding machine.
- (c) Write notes on: (i) Yarn clearer (ii) Anti-patterning device. (5+7+8=20)

SECTION - B

2. (a) What are objectives of warping?

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- (b) Compare beam warping with sectional warping.
- (c) How the performance of sizing can be assessed? Explain. (5+7+8=20)

OR

- (a) Discuss the importance of sizing in warp yarns.
- (b) Describe the working of a sectional warping machine.
- (c) Write notes on: (i) Sizing ingredients (ii) Features of warping machine. (5+7+8=20)

SECTION - C

3. (a) What is importance of drawing-in process?
- (b) Explain the primary and secondary motions of a loom.
- (c) Discuss the revolutions of modern looms. (5+7+8=20)

OR

- (a) Discuss various methods of drawing-in.
- (b) What do you understand by positive shedding and negative shedding? Explain.
- (c) Write short notes on: (i) Denting (ii) Drafting plan (iii) Lifting plan. (5+7+8=20)

SECTION - D

4. (a) Discuss the factors influencing pick variation in woven fabrics.
- (b) Discuss various types of shedding. Also give the advantages and disadvantages of each type.
- (c) Describe various types of conventional picking. (5+7+8=20)

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OR

- (a) Explain the tappet shedding.
- (b) With a neat sketch, describe over picking mechanism.
- (c) Discuss the methods for calculating shuttle velocity and picking force. (5+7+8=20)

SECTION - E

- 5.
- (a) What is balloon breaker in winding machines?
 - (b) Mention the advantages and disadvantages of photo-electric type yarn clearer.
 - (c) Discuss the leasing system in warping.
 - (d) Why stretch is so important in sizing?
 - (e) What is early picking?
 - (f) "Positive tappet looms can run faster than negative tappet looms". Justify the statement.
 - (g) State few latest methods of sizing.
 - (h) What are reasons of shuttle fly?
 - (i) What is semi-open shedding?
 - (j) Early shedding is preferable for weaving closure construction fabrics. (2×10=20)