[Total No. of Questions - 9] [Total No. of Printed Pages - 4]
(2063)

847

B.Tech 4th Semester Examination

Fabric Manufacture-I

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 question in all, selecting one question from each section A, B, C & D. Section E is compulsory.

SECTION - A

1. (a) What are the objectives of winding?

   (b) What are the functions of following parts of a modern winding machine—

   (i) Yarn tensioner (ii) Waxing device (iii) Splicer (iv) Balloon Breaker (v) Yarn clearer.

   (c) Discuss in brief modern developments in a automatic winding machine. **(5+5+10=20)**

OR

2. (a) What do you mean by Yarn faults? Classify various kinds of yarn faults as detected by classimat-II.

(b) Discuss the principle of operation of photo-electric and capacitance type clearers.

(c) What are the relative merits & demerits of these yarn clearers? **(5+10+5=20)**

SECTION - B

3. (a) What are the objectives of warping? Distinguish between beam warping machine and sectional warping machine.

(b) Discuss various types of creels used in warping machine.

(c) Describe the features of modern warping machine.

OR

4. (a) What are the objectives of sizing?

(b) Discuss in brief various size of ingredients used and their functions in sizing of cotton yarn. How do you assess performance of sizing machine?

(c) What do you mean by size pick-up? What are the various factors that influence the size pickup percentage? **(5+10+5=20)**

SECTION - C

5. (a) What do you mean by drawing-in? What is the objective of drawing-in?

(b) Discuss the various kind of healds used in weaving.

(c) What is denting? What is purpose of denting? What are the different types of reeds used?

(d) Define the term drafting and lifting plan.

(5+5+5+5=20)

OR

6. (a) What are the limitation of Manual loom? How these are overcome in Automatic loom? Classify various kinds of loom.

(b) Discuss the functions of following primary motions in a loom—

(i) Shedding (ii) Picking (iii) Beating up **(10+10=20)**

SECTION - D

7. (a) What do you mean by positive shedding and negative shedding?

(b) Discuss various kinds of shedding with neat sketch-with special reference to their relative merits, demerits and geometry. **(10+10=20)**

OR

8. (a) Describe with a neat sketch under picking mechanism. How do you increase the picking force?

(b) Discuss advantage of under picking mechanism in comparison with over picking mechanism. **(15+5=20)**

SECTION - E

9. Attempt all the 10 questions.

(a) What is precision winding?

(b) What is patterning?

(c) What is single end sizing?

(d) What do you mean by reed count?

(e) What do you mean by beat up force?

(f) What is slay eccentricity?

(g) What do you mean by late picking?

(h) What do you mean by let off?

(i) What do you mean by clearing efficiency?

(j) What is knot factor? **(10×2=20)**