

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

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B. Tech 4th Semester Examination

Fabric Manufacture-II (N.S.)

TE-224

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. Section E is compulsory.

SECTION - A

1. Deduce the cloth fell equation under steady state. Show the short term tension variation on warp and cloth during pick cycle. What will be the tension pattern during bumping?
(10+5+5=20)

OR

2. Discuss the suitability of warm wheel take up over 7 wheel take-up. What is electronic take-up? Illustrate how pick spacing can be controlled using warm wheel take-up. (5+5+10=20)

SECTION - B

3. (i) Classify different types of warp stop motions and discuss their relative advantages and disadvantages. (10)
(ii) Discuss center weft fork mechanism. What is its advantage over side weft fork mechanism? (8+2=10)

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2

14653

OR

4. (i) Discuss working mechanism of a latest warp stop motions. (10)
- (ii) Discuss side weft fork mechanism. (10)

SECTION - C

5. (i) Discuss the working principle of 4 × 1 drop box in shuttle loom. (10)
- (ii) Discuss the working principle of pirn changing mechanism. Why it is better than shuttle changing operation? (8+2=10)

OR

6. (i) Discuss the working principle of 2 × 1 drop box in shuttle loom. (10)
- (ii) Discuss the capability of different types of drop box motion for running different coloured weft. Discuss the safety features attached with drop box motion. (5+5=10)

SECTION - D

7. (a) Normally why speed of jacquard machine is slow. How the speed of jacquard machine is improved largely? (5+5=10)
- (b) Discuss working mechanism of a jacquard machine. (10)

OR

8. Discuss different types of shedding possible in dobby machine. Discuss the mechanism of a high speed dobby machine. (5+15=20)

SECTION - E

9. Attempt all 10 questions.
- (a) What are the types of weft stop motion?
 - (b) Why positive take up is preferred?
 - (c) What should be the cloth fell distance for heavier fabric?
 - (d) How many colour can be run as weft in 4 x 4 drop box if odd number of colour is required for patterning?
 - (e) How much waste is inevitable in case of weft replenishment system in loom fitted with drop box system?
 - (f) Differentiate between weft mixing and weft patterning.
 - (g) What factors govern the maximum number of heald shaft in dobby?
 - (h) Why open shedding in dobby is preferred?
 - (i) A design is repeating on 10 cm along length and 6 cm along width of a fabric having 40 ends and 30 picks per cm, what will be the required jacquard capacity?
 - (j) Classify different types of jacquard. (10×2=20)