

J-21-0014

B. Tech. EXAMINATION, 2021

Semester V (CBCS)

NON-CONVENTIONAL FABRIC MANUFACTURE

TE-505

Time : 2 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D. Q. No. 9 is compulsory.

Section A

1. What is the function weft accumulator ? Explain its types. **15**
2. How the tuck-in, leno, chain and fused selvages are formed ? Explain with neat diagrams. **15**

Section B

3. Explain the mechanism of water jet weaving emphasising on its weft insertion sequence. 15
4. Mention the fabric defect and remedies for projectile, airjet and waterjet weaving machines. 15

Section C

5. Give the classifications of rapier weaving machines. Explain the loom timing diagram of any *one*. 15
6. Elaborate the shedding mechanism of multiphase loom for both warp and weft way. 15

Section D

7. Mention the different types of narrow fabrics and their applications. 15
8. Provide an insight to the manufacturing of woven carpets and its design. 15

(Compulsory Question)

9. (i) Define Winding. What are the external factors affecting winding process ?

- (ii) Mention the limitations pertaining to shuttle looms.
- (iii) What is the basic principle of airjet weaving ?
- (iv) Define selvedge and its types.
- (v) Give the salient features of projectile weaving machine.
- (vi) Define flexible and rigid rapiers.
- (vii) Give the basic concept of multiphase weaving.
- (viii) What raw materials are used for carpet manufacturing ?
- (ix) What is the significance of loom timing in projectile weaving ?
- (x) Mention the types of nozzles in airjet weaving.

1.5×10=15