

J-21-0011

B. Tech. EXAMINATION, 2021

Semester V (CBCS)

TEXTILE TESTING-I

TE-502

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. Use of non-programmable calculators is allowed.

Section A

1. Classify the methods of measuring moisture regain and discuss any *one* in detail along with construction and working of the instrument. **15**

2. (a) Why is testing textile material necessary ?
(b) Discuss the Zoning technique with diagram.
Where is it used ? $7\frac{1}{2}\times 2=15$

Section B

3. Discuss the principle and working of any *one* fiber bundle strength tester. **15**
4. How can various length parameters be calculated from a Fibrograph obtained from SERVO Fibrograph ? **15**

Section C

5. Give a classification of twist in a yarn. Discuss any *one* method of measurement of twist in a single yarn. **15**
6. Explain the principle of INSTRON tensile tester. Mention different properties that can be measured on the instruments. **15**

Section D

7. What are different types of yarn irregularities ? Mention their reason of occurrence. **15**

8. Explain the principle of Uster Evenness Tester. Define different parameters measured by Uster Evenness Tester. **15**

(Compulsory Question)

9. Attempt all questions :
- (a) Define Hairiness Index.
 - (b) What is the significance of measuring CSP ?
 - (c) Define maturity coefficient.
 - (d) When is a cut square sample prepared ?
 - (e) Define correct Invoice weight.
 - (f) Define Micronaire value of cotton.
 - (g) Define FQI.
 - (h) Define fiber quality index.
 - (i) What are the Objectionable faults in Uster Classimat System ?
 - (j) Define Breaking Load and Extension. **10×1½=15**