Dec.-22-0227

TE-502 (Textile Testing-I)

B.Tech. 5th (CBCS)

Time : 3 Hours   **Max. Marks : 60**

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 : Attempt five questions in all, selecting one question from each section A, B, C and D. Question no. 9 is compulsory.

SECTION - A

1. What is the scope of testing? Discuss the objectives of preparation of sample before testing. (10)

2. What do you understand by standard atmospheric condition for textile testing? What are the factors affecting regain of a textile material? (10)

SECTION - B

3. Explain the method of measuring trash content with suitable diagrams. (10)

4. What do you understand by fiber contamination? How can you measure the contamination of cotton fiber? (10)

SECTION - C

5. Discuss the factors affecting tensile properties of yarn? (10)

6. Explain in detail the effect of impact loading and fatigue behaviour in yarn. (10)

SECTION - D

7. Explain the nature and causes of irregularity. Discuss the concept of spectrogram analysis. (10)

8. Discuss the principle and working mechanism of yarn hairiness tester. (10)

SECTION - E

9. (a) What do you understand by sampling error?

   (b) Define absolute humidity.

   (c) What do you mean by maturity of cotton fiber?

   (d) Discuss the grading of different cotton fiber.

   (e) What is weak link effect for tensile testing of material?

   (f) Convert 30 Tex into metric system.

   (g) What is the importance of fiber crimp?

   (h) What is the relation between moisture content and moisture regain?

   (i) List various yarn faults.

   (j) Give applications of HVI. (10×2=20)