[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2125)

15140

B. Tech 5th Semester Examination

Textile Testing-I (OS)

TE-5003

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 & D of the question paper and all the subparts of the questions in section E. Use of non-programmable calculators is allowed.

SECTION - A

1. What are the objectives of preparation of sample before testing? Discuss different sampling techniques use for fiber. (6+14=20)

2. Discuss about differentiate type of sample Designs-in detail. (20)

SECTION - B

3. Differentiate between moisture content and moisture regain. What is the relation between them? What do you understand by woven dry weight of a material? Discuss the effect of moisture on fiber properties. (5+2+3+10=20)

4. What are the factors effecting regain of textile materials? Discuss in detail. With the help of suitable diagram explain working mechanism of Shirley Moisture meter. (10+10=20)

[P.T.O.]

SECTION - C

5. How can you measure fineness of cotton fiber? Discuss in detail. What are the various types of length parameters measured for cotton fiber? Describe in brief about all these. (10+10=20)

6. How can you measure strength and elongation of cotton fiber? Discuss in detail with suitable diagram of the instrument. What do you understand by contamination? How can you measure fiber friction? Discuss in detail. (10+2+8=20)

SECTION - D

7. Define Metric yarn numbering system. Convert 30 Tex into Metric system. Convert 9 denier into Tex system. What are the different principles used to measure tensile properties of textile material? Discuss any suitable method of measuring tensile properties of yarn. (2+4+2+2+10=20)

8. Define thick place, thin place and neps. Discuss the principles and methods of evenness testing instrument. Explain the method of evaluation and interpretation of evenness results. (6+10+4=20)

SECTION - E

9. (i) What do you understand by sample?
   (ii) Define moisture content.
   (iii) What is the relation between moisture regain and heat of sorption?
   (iv) What are instruments used to measure standard atmospheric condition for testing?
   (v) What do you understand by maturity of cotton fiber?
   (vi) What is the importance of fiber crimp?
   (vii) What is weak link effect for tensile testing of material?
   (viii) Distinguish between tensile strength and busting strength.
   (ix) What is objective of analyzing spectrogram?
   (x) What is fatigue? (10×2=20)