(Following Paper ID and Roll No. to be filled in your Answer Books)
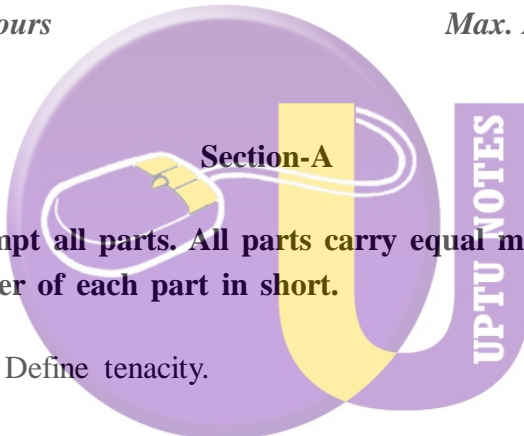
Paper ID : 164408 Roll No.

B.TECH.

Theory Examination (Semester-IV) 2015-16

TEXTILE TESTING I

Time : 3 Hours *Max. Marks : 100*

Section-A

1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

(a) Define tenacity.

(b) Write any two units of fibre fineness.

(c) Define moisture content.

(d) Give the units of toughness of a textile substrate.

(e) What is absolute humidity.

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(f) Increasing the RH% of testing environment from 60% to 80% will result in increase in tenacity value of PP fibre. (True/ False)

(g) What are the standard environmental conditions of textile testing.

(h) What is the full form of AFIS.

(i) Define degree of thickening.

(j) What are the additional parameters required to convert load/elongation curve to stress/strain curve.

Section-B

2. **Attempt any five questions from this section.**

(**10×5=50**)

(a) What are the factors affecting Yarn Hairiness.

(b) Discuss Yarn faults based on Length.

(c) What are the probable reasons of generation of Short Thick faults in yarn?

(d) Discuss the salient features of "AFIS".

(e) Explain the principle of "WIRA FDM" for measurement of wool fibre length.

(f) What is FQI? Discuss its importance.

(g) Discuss the 'Causticaire test'.

(h) Draw a stress-strain curve of a textile fibre and show the yield point and tenacity in it.

Section-C

Note: Attempt any two parts of the following. **(15×2=30)**

3. Explain the term 'Span Length'. How the 'Uniformity Ratio' is calculated with the help of Span Length.

4. With the help of a neat labelled diagram, discuss the principle of any textile fibre fineness tester.

5. Define random sampling and biased sampling. Give the probable causes of sample to become biased sample.