

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Textile) (2011 Onwards) (Sem.-3)

TEXTILE FIBRE-I

Subject Code : BTTE-301

Paper ID : [A2740]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.

SECTION-A**1. Answer briefly :**

- a. Why polymers are used as starting material for fibre formation?
- b. What is convolution in cotton and how it influences property of cotton textile?
- c. What are Tassar and Eri silk?
- d. Name the popular cultivated variety of silk and justify the nomenclature.
- e. What are the requirements of apparel variety of wool?
- f. Identify four disadvantages of silk.
- g. Identify four disadvantages of wool.
- h. What are the dimension, tenacity and breaking elongation of Indian variety of cotton?
- i. Name two unicellular fibres and two multicellular fibres.
- j. What is Press-Weight ratio in viscose manufacture and why is it important?

SECTION-B

2. Describe the dope preparation for viscose rayon production.
3. How orientation and crystallinity influence the properties of fibre?
4. What are the advantages of melt spinning compared to solution spinning?
5. Why wool and silk exhibit low wet strength?
6. Briefly describe the fine structure of flax with the help of a sketch.

SECTION-C

7. What is the significance and advantages of Tencel process over viscose rayon process? Discuss the production of regenerated cellulose fibre using direct solvent.
8. Discuss the retting of bast fibres and how retting influences quality of fibre? With the help of a neat sketch describe the fine structure of any one bast fibre.
9. List the properties of wool and silk. Justify the differences in properties of wool and silk based on the differences in their structure.