

Code No: 153CN**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech II Year I Semester Examinations, April/May - 2023****GENERAL TEXTILE TECHNOLOGY****(Textile Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) How many meters of yarn will be present in 1 Kg of 60's Cotton yarn. [2]
- b) What are essential chemical properties of textiles fibres? explain about any one. [3]
- c) What is the difference between textured yarn and stretch yarn? [2]
- d) Classify filament yarns based on orientation and number of filaments. [3]
- e) What are the general characteristics of Linen fibres? [2]
- f) Explain different methods of Retting Jute fibres. [3]
- g) What is the difference between Wild silk and Domesticated Silk? [2]
- h) Briefly explain about different types of Silk fabrics. [3]
- i) State the general characteristics of Bamboo fibres. [2]
- j) Write the burning characteristics of common textile fibres to identify them. [3]

PART – B**(50 Marks)**

- 2.a) Explain about desirable properties of textile fibres.
 - b) Classify the systems of yarn count. Mention the length and weight units in each system. [5+5]
- OR**
- 3.a) Classify Synthetic textile fibres based on chemical structure.
 - b) Briefly explain different physical properties to be considered for textile fibres. [5+5]
- 4.a) Mention any five Indian hybrid varieties of cotton and mention the properties.
 - b) Explain the morphological structure of Cotton using simple sketch. [5+5]
- OR**
- 5.a) Explain about chemical properties of Cotton.
 - b) Explain the process stages in chemical processing of textile materials. [5+5]
- 6.a) Explain the properties of Linen fibres.
 - b) Classify Wool fibres based on type of sheep. Briefly explain about them. [5+5]
- OR**
- 7.a) Explain about wool fibre morphology.
 - b) Explain the physical properties of Wool. [5+5]
- 8.a) Briefly explain about different methods of Cocoon cooking.
 - b) Explain about Cottage based reeling of Silk. [5+5]
- OR**
- 9.a) Explain the chemical properties of Silk.
 - b) Explain about degumming of Silk. Why this process is necessary for Silk? [5+5]

- 10.a) Explain the properties common to all protein fibres.
b) Compare Jute and Flax in terms of properties and characteristics. [5+5]

OR

- 11.a) Draw the simple sketches showing the microscopic appearance of Wool and Silk and state the identifying features.
b) Write short notes on Banana fibres and Coir Fibres. [5+5]

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