

Code No: 154DA**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech II Year II Semester Examinations, February - 2024****TEXTILE TESTING - II****(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) State the significance of measuring fabric dimensions. [2]
- b) What are standard atmospheric conditions for textile testing room? Why it is necessary to have standard atmospheric conditions? [3]
- c) What is meant by “Crimp interchange”, Briefly explain. [2]
- d) Explain the relationship between fabric washing and tearing strength. [3]
- e) What is the difference between Static drape and dynamic drape? [2]
- f) Explain about abrasion resistance of the fabrics and its testing. [3]
- g) What are the impacts of wet processing on air permeability of the fabric? [2]
- h) State the factors influencing thermal properties of the fabric. [3]
- i) Define fastness properties of textile material. Mention the types. [2]
- j) What are the fabric characteristic values in KESF system and define each. [3]

PART – B**(50 Marks)**

- 2.a) Explain different methods of measuring GSM of the fabric.
 - b) Tabulate Routine tests conducted for fabrics and the method or instrument used for each. [5+5]
- OR**
- 3.a) Explain the factors which affect the crimp of the yarns in the woven fabric.
 - b) Explain different methods of measuring thread density in the woven fabric. [5+5]
- 4.a) Explain the need and significance of testing Bursting strength of fabric.
 - b) Explain the factors affecting tensile strength test results. [5+5]
- OR**
- 5.a) State the factors which effect the Tearing strength of a fabric.
 - b) Explain the need and significance of testing ballistic strength of the fabric. [5+5]
- 6.a) Explain the method of measuring fabric crease recovery.
 - b) Explain the need for and significance of testing fabric shear. [5+5]
- OR**
- 7.a) Name the factors affecting bending behavior of fabric.
 - b) Explain the method of measuring fabric bending length and stiffness. [5+5]

- 8.a) Explain the need for and significance of testing Air permeability of the fabric.
b) Explain the principle of testing wicking behavior of the fabric by shower proof test. [5+5]

OR

- 9.a) Explain the factors governing shrinkage properties of the fabric.
b) Explain the principle of measuring thermal conductivity of the fabric. [5+5]

- 10.a) Explain the principle of measuring wash fastness of the fabric.
b) Explain the impact of Scouring and Bleaching on fabric properties. [5+5]

OR

- 11.a) Explain the difference between subjective and objective measurement of properties of textile materials with examples.
b) Explain the principle of measuring flammability of the fabric by ATLAS automatic flammability tester. [5+5]

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