

[Total No. of Questions - 9] [Total No. of Printed Pages - 4]
(2064)

14732

B. Tech 6th Semester Examination

Textile Testing-II

TE-6001

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 of section A, B, C & D of the question paper and all the subparts of the question in Section E.

SECTION - A

1. (a) Explain the working principle of a Friction Tester based on dynamic principle. (8)
- (b) Discuss the test procedure to measure fabric weight. (4)
- (c) State any four precautions to be taken during evaluation of fabric thickness. (4)
- (d) What is the effect of threads/unit length and weave on drape of a fabric? (4)
2. (a) Define air permeability, air resistance and thermal insulation value of the fabric. (6)
- (b) Discuss a suitable method to measure the air permeability. (8)

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[P.T.O.]

- (c) What is the importance of Constant Tension Winding Test? (6)

SECTION - B

3. (a) Distinguish between serviceability, wear and abrasion of fabrics. (4)
- (b) Explain briefly the types of test done to evaluate the "Total Handle Value" of the fabric. (8)
- (c) List any four reasons for pill formation on fabric surface. (4)
- (d) How to measure the crease recovery of a fabric? (4)
4. (a) Discuss the factors affecting the tearing strength of a fabric. (4)
- (b) What is the effect of crimp on abrasion resistance of fabric? (4)
- (c) Describe any method of measuring fabric abrasion. (8)
- (d) How to use gray scales? (4)

SECTION - C

5. (a) Describe the test procedure to measure the colour fastness to rubbing. (5)
- (b) What is 4-point system of grading fabric? (5)
- (c) Discuss the method to measure the seam strength of a woven and knitted fabric. (10)
6. (a) Describe the test procedure to measure the laundering fastness. (5)
- (b) What do you mean by puckering of seam? (3)

- (c) How can you calculate the blend percentage from P/C blended yarn? (4)
- (d) Illustrate all the causes of seam pucker elaborately. (8)

SECTION - D

7. (a) What are the ISO 9000 series standard? (5)
- (b) How to prepare samples to check fabric strength? (5)
- (c) Explain the factors that influence the customer perception of quality. (10)
8. (a) Mention the full name of sources of any four standard test methods for textiles. (4)
- (b) How does ISO define quality? Explain. (4)
- (c) Define reproducibility and repeatability. (4)
- (d) Why is it important to know cost of quality or keep track of quality cost? (8)

SECTION - E

9. Attempt all questions in this section. (Compulsory)
- (a) Name the light sources used for evaluation of colour fastness to light.
- (b) Express mathematically-Drape-coefficient.
- (c) How can you segregate viscose and cotton by chemical analysis?
- (d) Why dynamic yarn testing instruments are preferred than that instruments worked on steady state principle?

[P.T.O.]

- (e) Which "KAWABATA" instrument is used to check the tensile and shear properties of textile material?
- (f) Mention the international standard for specimen length and pre-tension for a CRE tester.
- (g) How seam efficiency is expressed?
- (h) What is the importance to check the low stress mechanical properties of a fabric?
- (i) How to collect fabric samples from a roll of a fabric for testing purpose?
- (j) Arrange following textile material as per diminishing crease resistance : Silk, Cotton, Wool, Viscose, Polyester.
(10×2=20)