17465

14115

3 Hours / 100 Marks **Seat No.** | | | | | | | | |

Instructions : (1) All Questions are *compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Assume suitable data, if necessary.
(6) Use of Non-Programmable Electronic Pocket Calculator is permissible.

Marks

1. Attempt any FIVE : **(4 × 5) = 20**

(a) Describe Fabric Sampling Method with sketch.
(b) State principle of Fabric thickness tester. Also draw neat sketch of thickness tester.
(c) How drapeability of fabric is improved ?
(d) Define : Serviceability, wear, abrasion & pilling.
(e) Compare Tenso-jet & Tenso-rapid yarn testing instrument.
(f) What is Grey scale for colour change and staining in colour fastness testing ?
(g) State principles of Tensile strength, tearing strength & brusting strength tester.

2. Attempt any FOUR : **(4 × 4) = 16**

(a) Define the term fabric length and describe method of measurement of fabric length.
(b) What are effects of crimp on Fabric properties ?
(c) Describe methods of measuring threads per unit length of Fabric.
(d) Define cover factor and write the formulae for warp cover factor, weft cover factor and cloth cover factor. Calculate cloth cover factor if EPI = 60, PPI = 80 and warp count = 40^s & weft count = 80^s WC.
(e) Define Bending length. What is cantilever principle ?
(f) Draw neat sketch of crease recovery tester with label. State sample size for crease-recovery test.

3. Attempt any FOUR : **(4 × 4) = 16**

(a) Draw neat sketch of stiffness tester with label.

(b) Describe measurement of Drape co-efficient by drapemeter.

(c) Describe measurement of pilling by ICI pill box tester.

(d) List out factors responsible for pilling. Describe any four.

(e) Compare water proof and water repellent fabrics.

(f) Define Air permeability, Air resistance, Air porosity, Shower proof fabric.

4. Attempt any TWO : **(8 × 2) = 16**

(a) Describe with neat sketch of sample, size and instrument method for measuring tearing strength of fabric.

(b) Describe in brief, principle and parameters given by High Volume Instruments (HVI).

(c) Draw neat sketch of Brusting strength Tester and describe measurement of the Brusting Strength.

5. Attempt any TWO : **(8 × 2) = 16**

(a) Describe in brief principle, working and parameters given by AFIS (Advanced Fibre Information System).

(b) Describe the methods for measurement of colour fastness to light for textile fabrics.

(c) What is seam strength ? Describe method of measurement of seam slippage.

6. Attempt any FOUR : **(4 × 4) = 16**

(a) What is principle of Tenso-jet instrument ? Explain use of scatter plot.

(b) Describe swelling shrinkage in dimensional stability of Fabric.

(c) What is spray test for measurement of water repellency ?

(d) What are factors affecting air-permeability of fabric ?

(e) Draw a neat sketch with labels air permeability tester.

(f) What are types of abrasion ? How end point of abrasion testing is accessed ?

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