

17465

**11920**

**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.
  - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any FIVE of the following :**

**20**

- (a) Explain with neat sketch fabric sampling method.
- (b) Enlist methods of measuring threads per unit length, explain any one.
- (c) Draw neat and labelled diagram for spreya test.
- (d) Explain CRE principle.
- (e) Define Bending length and Bending Modulus with formulae.
- (f) Draw neat sketch of AFIS.
- (g) Define Air-permeability and Air-resistance.

- 2. Attempt any FOUR of the following : 16**
- (a) Calculate GSM of Fabric with following particulars :  
EPI = 64, PPI = 48, Warp Tex = 20, Weft Tex = 20, Warp and Weft crimp = 5%
  - (b) Draw a neat labelled diagram of fabric thickness tester.
  - (c) Enlist factors affecting air-permeability and explain any two.
  - (d) Define Drape and Drape coefficient.
  - (e) Explain Fineness measurement principle of High Volume Instrument (HVI).
  - (f) Define serviceability, wear and abrasion.
- 3. Attempt any TWO of the following : 16**
- (a) Explain measurement of bursting strength of fabric with neat sketch and label it.
  - (b) Explain strain gauge principle.
  - (c) Explain measurement of colour fastness for washing.
- 4. Attempt any FOUR of the following : 16**
- (a) Define cloth cover and calculate cloth cover factor if warp and weft thread density is 60 per inch and warp count 60 Ne and weft count is 58 Ne.
  - (b) Draw neat sketch of fabric stiffness tester.
  - (c) Enlist factors responsible for pilling of fabric and explain any two.
  - (d) Compare waterproof and water resistance fabrics.
  - (e) Explain principle of tearing strength tester and draw diagram of sample size for tearing strength testing.
  - (f) Enlist the all parameters given by High Volume Instrument (HVI).

**5. Attempt any TWO of the following :****16**

- (a) Explain Hydrostatic water test with neat sketch.
- (b) Explain measurement of abrasion resistance with Martindale Abrasion Tester.
- (c) Explain measurement of Rubbing fastness of fabric.

**6. Attempt any FOUR of the following :****16**

- (a) Draw neat labelled diagram of crease recovery tester.
  - (b) Explain grey scale for colour change.
  - (c) What is Rd and +b value ? How it is measured in High Volume Instrument ?
  - (d) Define crimp and crimp %. Calculate crimp% if length of yarn in fabric is 15 cm and extended length is 18 cm.
  - (e) Explain CRT principle.
  - (f) Explain how drapability of fabric is improved.
-

