

17465

16117

3 Hours / 100 Marks

Seat No.

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- 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 TEN of the following:** **20**
- a) State the various factors responsible for fabric pilling.
 - b) Give the importance of cover factor.
 - c) State the concept of water repellent fabric with suitable example.
 - d) How fabric drape can be improved? Explain.
 - e) Describe method for measurement of width of fabric.
 - f) How fabric structure affects on air permeability? Explain.
 - g) Define warp and weft cover factor.
 - h) Write purpose of serveabilite test.
 - i) Define crimp and crimp percentage.
 - j) State the various parameters measurable in AFIS and HVI.

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- k) State the meaning of “CRT, CRL, CRE” for measuring strength.
- l) Explain assessment of colour fastness by grey scale method.
- m) State the concept dimensional stability of fabric.
- n) Write down the causes of seam failure.

2. Attempt any FOUR of the following: 16

- a) Explain the procedure to measure fabric cover factor.
- b) How yarn crimp will affects on fabric properties?
- c) Draw the diagram of ICI pill box tester and state specimen size of fabric.
- d) Explain wear and abrasion property of fabric.
- e) Write down the procedure to find crease recovery of fabric.
- f) Explain the factors affecting on abrasion resistance.

3. Attempt any FOUR of the following: 16

- a) Draw a label diagram of spray test and explain spray rating grade.
- b) Draw and explain water repellency test by hydrostatic held test.
- c) Define - Air resistance and Air porosity.
- d) Explain the method to measure fabric stiffness.
- e) Explain:
 - (i) Revelled sample preparation
 - (ii) Grab sample preparation method for fabric tensile strong test.
- f) Explain the principle and working of Tenso-jet.

- 4. Attempt any FOUR of the following:** **16**
- a) Explain:
 - (i) Flexural rigidity
 - (ii) Bending modulus
 - b) Compare Tenso-jet and Tenso-rapid yarn testing instrument.
 - c) Draw a well label diagram of Shirley Air permeability tester.
 - d) Explain the procedure for sample preparation colour fastness test.
 - e) Explain principle of high volume instrument.
 - f) What is EPI and PPI? How it is measured.
- 5. Attempt any TWO of the following:** **16**
- a) Draw principle diagram of AFIS and explain its working. Also give the advantages of AFIS test.
 - b)
 - (i) Explain sample preparation method in Elmendorf tear strength tester.
 - (ii) Draw and explain the working of Elmondorf tear strength tester.
 - c)
 - (i) Describe the procedure to find rubbing fastness of fabric.
 - (ii) Draw well label diagram of diaphragm bursting strength tester.
- 6. Attempt any TWO of the following:** **16**
- a)
 - (i) Explain hygral and swelling shrinkage.
 - (ii) How shrinkage is measure? Explain.
 - b)
 - (i) What is drape?
 - (ii) Write down its importance
 - (iii) Draw and explain the measurement of drape.
 - c)
 - (i) With diagram explain fabric sampling.
 - (ii) Draw and explain the procedure of fabric tensile strength test.
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