

17471

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 FIVE of the following: 20**
- a) Define British count and Tex count. Give an expression for the same.
 - b) Define twist. Draw figures of types twist and define them.
 - c) What are expressions used for unevenness? State the types of irregularities (variations) present in yarn.
 - d) List down various fabric dimensional properties which need to be tested.
 - e) Draw neat sketch of crease recovery tester and label its name.
 - f) Define serviceability, wear and abrasion.
 - g) Define waterproof fabric, water repellent fabric.
 - h) What is CSP? State its importance.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Describe the standard method of determination of yarn count by wrap reel method.
 - b) State the effects of yarn unevenness on yarn and fabric properties?
 - c) (i) Define fabric length and width of fabric.
(ii) Describe method of measurement of fabric thickness.
- 3. Attempt any TWO of the following:** **16**
- a) Describe the method of measurement of twist by “Twist contraction principle”.
 - b) (i) Define crimp, crimp% crimp amplitude.
(ii) State method of measurement of crimp% in warp and weft.
 - c) (i) How drapability of the fabric is improved?
(ii) Describe a method of measurement of drape of fabric.
- 4. Attempt any TWO of the following:** **16**
- a) Explain the method of determining stiffness of fabric. Give expression for bending length, flexural rigidity and bending modulus.
 - b) Describe the measurement of abrasion by using martindale abrasion tester.
 - c) Describe the method of measurement of water repellancy by spray test.
- 5. Attempt any TWO of the following:** **16**
- a) State the remedies to be taken to avoid pilling of fabric. Describe the method of measurement of pilling by ICI pill box tester.
 - b) Define air permeability, air resistance and air porosity. State factor's affecting air permeability of fabrics.

- c) Define:
- (i) Tenacity
 - (ii) Work of rupture
 - (iii) Work factor
 - (iv) Elastic recovery
- give an expression for the same.

6. Attempt any TWO of the following: 16

- a) (i) List methods of measurement of threads/unit length and fabric weight.
 - (ii) Draw neat sketch of Lea-strength tester of yarn.
 - b) Describe method of measurement of Fabric tensile strength.
 - c) Draw neat sketch of sample size for tearing strength testing and state method of measurement of tearing strength.
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