

17334

11819

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) Define metric count and give formulae.
 - b) List the various methods used for measuring threads per unit length.
 - c) Give sample size for stiffness testing with cantilever principle.
 - d) Define Air-permeability.
 - e) What is imperfection?
 - f) State the concept of GSM.
 - g) Define Denier and give its formulae.
 - h) State types of abrasion.
 - i) List factors affecting air-permeability any four.

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- j) What is gauge length for single yarn strength testing?
- k) Explain principle of Bursting strength tester.
- l) List the fabric dimensional properties.
- m) Define Elastic recovery.
- n) Give sample size for Tearing Strength Testing.

2. Attempt any FOUR of the following: 16

- a) Draw the neat sketch of the yarn twist tester working on untwisting principle.
- b) What is Drape? Write formula for measuring Drape coefficient of fabric.
- c) Draw the schematic figure of Tearing Strength Tester.
- d) Explain cutting and weighing method for finding yarn evenness.
- e) Define Mass stress and Tenacity.
- f) Define serviceability, wear and abrasion.

3. Attempt any TWO of the following: 16

- a) Define fabric length and width. List down the methods of measuring fabric length and describe any one.
- b) Describe method of measuring crease recovery angle of fabric with schematic figure.
- c) What is the standard method of determination of yarn count with electronic balance if yarn is in package and fabric form?

4. Attempt any TWO of the following: 16

- a) State types of variations in yarn evenness testing. What is effect of yarn unevenness on yarn and fabric properties?
- b) Compare Direct and Indirect yarn numbering system.
- c) Define Crimp. Describe method of measurement of crimp % in warp and weft yarn.

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

- a) How to measure drape of fabric? Explain in detail.
- b) Define Pilling. Describe measurement of pilling by ICI pill box tester.
- c) Define cover factor. Write formulae for warp, weft and cloth cover factor. Calculate cloth cover factor from following details.

Warp Count = 60 Ne, Weft Count = 40 Ne

EPI = 80, PPI = 70.

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

- a) Describe standard method to determine CSP of yarn with schematic figure.
 - b) Explain spray test method with neat sketch and give ratings.
 - c) Define CRE, CRL and CRT principles. Give sample size for Unravel strip test, Cut strip test and Grab test.
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