

17471

15162

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.

Marks

1. Attempt any TEN of the following:

20

- Define English cotton count (Ne).
- Draw sketch of directions of twist.
- State types of variations in yarn evenness testing.
- What is effect of yarn unevenness on yarn strength?
- Define Bending Length. State name of principle used for stiffness testing.
- Define serviceability.
- Define Air-permeability.
- State types of abrasion with example.
- What is wear and abrasion?
- Define mass stress.
- State principle of single thread strength tester.
- Define load and elongation.

P.T.O.

- m) State principle of tearing strength testing.
- n) Define tenacity.
- o) How drape ability is improved?

2. Attempt any FOUR of the following: 16

- a) Describe indirect yarn numbering system with advantages and disadvantages.
- b) Define Tex and Denier count also write formulae for the both.
- c) Draw neat sketch of the yarn twist tester working on twist contraction principle.
- d) With neat sketch describe fabric sampling method.
- e) What is effect of twist on yarn and fabric properties?
- f) Describe method of measurement of yarn count by wrap reel method.

3. Attempt any TWO of the following: 16

- a) What is effect of yarn unevenness on yarn and fabric properties?
- b) Define crimp. Describe method of measurement of crimp% in warp and weft.
- c) How to measure drape of fabric? Explain in detail.

4. Attempt any FOUR of the following: 16

- a) List methods of measuring threads per unit length (EPI and PPI) Explain any one.
- b) Define cover factor. Write formulae for warp cover factor, weft cover factor and cloth cover factor.
- c) Define fabric length and width. Describe any one method of measuring fabric length.
- d) List factor's responsible for pilling and explain any four.
- e) What are factor's affecting air permeability?
- f) Compare waterproof and shower proof fabrics by any two points's.

5. Attempt any TWO of the following: 16

- a) Describe method of measuring crease recovery angle of fabric, also state maximum crease recovery angle for the fabric.
- b) Define pilling and describe measurement of pilling by ICI pill box tester.
- c) Describe measurement of water proofness by hydrostatic water head test.

6. Attempt any TWO of the following: 16

- a) Describe determination of single yarn strength i.e. breaking load and elongation of yarn by single thread strength tester.
 - b) Describe with neat sketch measurement of tearing strength of fabric.
 - c) With neat sketch describe method of determination of bursting strength of fabric.
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