



17334

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.*

Marks

1. Attempt any ten from following.

20

- a) Define the British count system.
- b) Define the Yarn twist.
- c) State the concept of twist direction.
- d) State the formula for denier and Tex.
- e) State the formula of warp cover factor and weft cover factor.
- f) Calculate the warp cover factor, if fabric having E.P.I : 120 and warp count is 40 Nc.
- g) Define the drape coefficient.
- h) Give the delineation of air permeability.
- i) State the concept of G.S.M.
- j) Define the crimp%.
- k) State the concept of create resistance.
 - l) What is C.S.P ?
- m) Define Tenacity.
- n) Define elastic recovery.

2. Attempt any two.

16

- a) Describe the working of thickness tester with suitable figure.
- b) Draw the schematic figure of drape tester and explain the procedure to determine the drape coefficient.
- c)
 - i) Explain the method of twist measurement by twist contraction.
 - ii) Explain the relation between yarn count and twist per inch.

P.T.O.


3. Attempt any four.

- a) State the importance of yarn numbering systems.
- b) Explain the method to determine the weight/unit area of fabric.
- c) State the concept of bending length and bending modulus.
- d) What is pilling? State the factors which affects the pilling.
- e) Compare between the waterproof and water repellent fabrics.
- f) List the various factors which affects the tearing strength of fabric.

4. Attempt any two.
16

- a) Explain the procedure to determine E.P.I., P.P.I, warp count and weft count, fabric cover factor in brief.
- b) Draw the schematic figure of Hydrostatic water Head tester and explain its working.
- c) i) Define and state the formula for following counts.
 - i) Metric count
 - ii) Worsted count
- ii) Explain the concept of yarn evenness and procedure to determine the yarn unevenness.

5. Attempt any two.
16

- a) i) Describe the method to determine yarn count.
- ii) Explain the content of following term
 - i) E.P.I.
 - ii) E.P.dm.
 - iii) P.P.dm
 - iv) P.P.cm
- b) Explain the procedure to determine the crease recovery angle with suitable figures.
- c) i) Explain the following terms.
 - i) Serviceability
 - ii) Wear
 - iii) Abrasion
- ii) Define the following terms and write its importance
 - i) Elongation
 - ii) Work of rupture
 - iii) R.K.M.
 - iv) Work factor

6. Attempt any two.
16

- a) i) State the effect of twist on fabric Properties.
- ii) Draw the schematic figure of martindale abrasion tester and describe its working.
- b) Explain the single yarn strength tester with a schematic figure.
- c) Draw the schematic figure of Burshing strength tester and explain its working in brief.
- d) Calculate the crimp % from following data

Length of yarn in fabric – 20 cm

Straightened length - 21 cm.
