

22358

24225

3 Hours / 70 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.

Marks

1. Attempt any FIVE of the following :

10

- (a) Define yarn numbering system.
- (b) State the methods to evaluate the abrasion of fabric.
- (c) Define the air permeability.
- (d) Define the air porosity.
- (e) State the concept of T.I.V. of fabric.
- (f) State the concept of drape and list evaluation methods of drapability.
- (g) Define elastic recovery and tenacity of yarn.

2. Attempt any THREE of the following :

12

- (a) State the reasons for indirect relationship between yarn count and yarn size in indirect yarn numbering system.
- (b) Describe the method to measure the thickness of fabric with sketch.
- (c) Define serviceability, wear and abrasion.
- (d) Define contact angle and describe the water and fabric relation with respect to wettability.



- 3. Attempt any THREE of the following : 12**
- (a) State the effect of yarn unevenness on fabric property.
 - (b) Draw and describe the method to measure the crimp % in yarn.
 - (c) (i) State the concept of pilling.
(ii) Describe the various factors responsible for pilling of fabric.
 - (d) Describe the method to measure the air permeability of fabric.
- 4. Attempt any THREE of the following : 12**
- (a) Calculate the yarn count in “NC” if yarn weight is 100 kg and length of yarn is 10,000 meter.
 - (b) (i) State the concept of dimensional stability.
(ii) Describe the method to measure it with sketch.
 - (c) Draw the schematic diagram for Martindale abrasion tester and label their part names.
 - (d) Draw schematic diagram of spray test method to measure the wettability.
 - (e) Describe the method to measure the bursting strength of fabric with sketch.
- 5. Attempt any TWO of the following : 12**
- (a) (i) Define twist.
(ii) Describe the method to measure the twist by contraction principle.
 - (b) Describe with sketch the method to determine the thread count from fabric.
 - (c) Draw and describe the tearing strength tester along with template size diagram.
- 6. Attempt any TWO of the following : 12**
- (a) Describe the method to measure the crease resistance and crease recovery angle of fabric with sketch.
 - (b) Describe the method to determine the fastness to perspiration and sublimation.
 - (c) Explain the gray scale for colour change and degree of staining.
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