# 22364

# 12425 3 Hours / 70 Marks

Seat No.

*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

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## 1. Attempt any FIVE of the following :

- (a) Calculate yarn number in English system of yarn cone of 1.8 kgs having 200000 meter length.
- (b) Calculate CSP for 30 Ne yarn having 58 lbs lea strength.
- (c) Define Denier.
- (d) Calculate percentage weight loss of denim fabric of 2.5 grams which became2.38 grams after 400 abrasion cycles.
- (e) Define waterproof fabric.
- (f) Define Tenacity.
- (g) Give the sample size for tearing strength measurement of fabric.



#### 2. Attempt any THREE of the following :

- (a) Calculate Tex and Denier of polyester yarn having 3.35 kilometer length and 503 grams weight.
- (b) Describe with neat sketch the measurement of Bursting strength.
- (c) Describe the measurement of wear resistance of fabric with Martindale abrasion tester.
- (d) Calculate drape coefficient of cotton fabric with following information :

Draped pattern paper weight = 2.64 grams Photosensitive paper weight = 15 mg per cm<sup>2</sup>

Sample size = 10 inch diameter

Supporting Disk size = 5 inch diameter

## **3.** Attempt any THREE of the following :

- (a) Explain fabric sampling method with relevant sketches.
- (b) Describe the measurement procedure for fabric thickness measurement.
- (c) Explain any four factors responsible for pilling in fabric.
- (d) Suggest the ratings for spray test for measurement of water resistance of fabric.

## 4. Attempt any THREE of the following :

- (a) Explain basic concept of wetting of fabric.
- (b) Describe the procedure for measurement of twist in double yarn with neat sketch.
- (c) Explain the effect of twist on yarn properties.
- (d) Suggest the end point for assessment of wear resistance.
- (e) Calculate cloth cover factor of fabric with following data :

Warp count = 40 Ne Weft count = 36 Ne EPI = 60, PPI = 40 12

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#### 5. Attempt any TWO of the following :

(a) Calculate fabric weight in grams per square meter with following data :

Warp count = 60 Weft count = 60 EPI = 80 PPI = 52 Warp crimp = 7% Weft crimp = 6%

- (b) Describe measurement procedure for measuring bending modulus with neat sketch.
- (c) Describe procedure for measurement of tensile strength with neat sketch.

## 6. Attempt any TWO of the following :

- (a) Describe the procedure for measurement of crease recovery angle with neat sketch.
- (b) Convert 60 English count into Denier, Tex and Metric count.
- (c) Describe the procedure for measurement of lea strength with neat sketch.

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