

22358

23124

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.
 - (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 FIVE of the following :

10

- (a) Define 'Z' twist with suitable sketch.
- (b) Define fabric thickness.
- (c) Define abrasion.
- (d) Define air-porosity.
- (e) Explain concept of wetting.
- (f) Define tenacity.
- (g) Give the sample size for fabric washing fastness measurement.

2. Attempt any THREE of the following :

12

- (a) Calculate English yarn number of lea weighing 1.63 grams.
- (b) Calculate cloth cover factor with following details :
EPI = 60, PPI = 52, Warp Ne = 40, Weft Ne = 36
- (c) Explain mechanism of pill formation.
- (d) Compare waterproof and water repellent fabric with example.



- 3. Attempt any THREE of the following : 12**
- (a) Explain fabric sampling method with suitable sketches.
 - (b) List the end points for assessment of abrasion resistance of fabric.
 - (c) Describe the measurement procedure for measurement of water repellency by spray test with suitable sketch.
 - (d) Describe the measurement procedure for measuring bursting strength of parachute fabric.
- 4. Attempt any THREE of the following : 12**
- (a) Explain twist contraction principle for measurement of single yarn twist with neat labelled diagram.
 - (b) Explain factors responsible for pilling of fabric.
 - (c) Explain factors responsible for air-permeability of fabric.
 - (d) Describe procedure for single yarn strength measurement.
 - (e) Explain gray scale for colour change and degree of staining.
- 5. Attempt any TWO of the following : 12**
- (a) Explain effect of yarn evenness on yarn and fabric properties.
 - (b) Calculate GSM of fabric with following details :
EPI = 64, PPI = 72,
Warp Ne = 60, Weft Ne = 60,
Warp Crimp% = 6%, Weft Crimp% = 8%
 - (c) Describe procedure for measurement of crease recovery angle with suitable sketch.
- 6. Attempt any TWO of the following : 12**
- (a) Convert 80 Ne into Tex and denier yarn numbering.
 - (b) Calculate bending modulus of shirting fabric which has 2.4 cm bending length, 24 mg/sq.cm. weight and 0.035 cm thickness.
 - (c) Describe procedure for measurement of rubbing fastness for denim fabric.
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