

17465

21819

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.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

20

- (a) Explain the principle of abrasion testing of the fabric.
- (b) Define water-proof and water repellent fabrics and their applications.
- (c) Explain the factors affecting air-permeability.
- (d) Define Drape and Drape co-efficient of the fabrics with their formulae.
- (e) State the terms-serviceability, wear and abrasion.
- (f) Draw a neat labelled diagram of crimp tester and write its working principle.
- (g) Define fabric width and explain measurement of fabric width.

2. Attempt any TWO of the following:

16

- (a) Explain the importance of grey scale for colour change and staining tests.
- (b) Explain working principle of AFIS with neat labelled diagram.
- (c) Explain working principle of Tenso-rapid yarn testing and also give features of Tenso-rapid.

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- 3. Attempt any TWO of the following : 16**
- (a) State working principles of High Volume Instruments (HVI).
 - (b) Define Crimp and GSM. Write the effect of crimp on fabric properties and explain the method of determination of crimp percentage and determination of GSM of the fabric.
 - (c) Explain the process for tensile strength measurement of the fabric.
- 4. Attempt any TWO of the following : 16**
- (a) Define cloth cover and give formulae for warp cover, weft cover and cloth cover factor. Calculate cloth cover factor of fabric with following particulars :
EPI = 80, PPI = 60, Warp count = 40 Ne, Weft count = 30 Ne
 - (b) With neat diagram explain measurement of crease recovery angle.
 - (c) Explain the measurement of fabric dimensional stability properties.
- 5. Attempt any TWO of the following : 16**
- (a) Explain measurement of tearing force of fabric with tearing strength tester.
 - (b) Define bending length and flexural rigidity. Give formulae and units of bending length, flexural rigidity and bending modulus.
 - (c) Explain the test procedure for washing fastness and rubbing fastness and their importance.
- 6. Attempt any TWO of the following : 16**
- (a) Explain with neat labelled diagram spray tester and its testing process.
 - (b) Enlist factors responsible for pilling of fabric, explain any four and explain any one method to minimise pilling property of fabrics.
 - (c) Explain measurement of air permeability and explain its importance.
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