

17465

21415

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

20

1. Attempt any TEN :

(a) State the principle of thickness tester.

(b) Define English count and give expression for the same.

(c) What is pilling ? How it takes place ?

(d) Define 'water proof' and 'water repellent' fabric.

(e) Define :

(i) Air permeability

(ii) Air porosity

(f) State the importance of determination of bursting strength.

(g) What is CSP ? State its importance.

(h) List down the properties which can be tested on HVI.

(i) List down the properties that can be tested on AFIS.

(j) List down various types of light sources used in colour fastness to light.

(k) List down reasons for seam slippage.

(l) State the effect of crimp on fabric properties.

(m) Define 'Drape'.

(n) State the importance of testing crease recovery and principle.

P.T.O.

- 2. Attempt any TWO : 16**
- (a) (i) Describe the method of determination of crimp in the fabric.
 - (ii) Write a short note on determination of fabric length, width
 - (b) (i) Derive formula for relation between yarn count and cover factor.
 - (ii) Explain fabric sampling method adopted for determination of tensile strength of a fabric.
 - (c) Explain the procedure for measurement of stiffness by tester based on cantilever principle. (IS 6490-1971)
- 3. Attempt any TWO : 16**
- (a) Describe the procedure for determination of drape coefficient by drape meter (IS 8357 – 1977). State the importance of this test procedure.
 - (b) Define :
 - (i) Serviceability
 - (ii) Wear and
 - (iii) Abrasion.What are the factors affecting abrasion resistance ? Explain working of Martindale abrasion tester.
 - (c) State the factors affecting pilling. Describe the procedure for measurement of pilling by ICI pill box tester (IS 10971 : 1984 SP-15 Part-II)
- 4. Attempt any TWO : 16**
- (a) Describe spray test with help of diagram for water repellency testing.
 - (b) Describe the test procedure for measurement of air permeability. State the factors affecting air permeability.
 - (c) Describe in detail the test procedure used to determine tearing strength. (IS 6359 : 1971 SP-15 Part – II 2000)
- 5. Attempt any TWO : 16**
- (a) Describe the method of determination of Bursting strength. (IS 1966 : 1975 SP-15 Part-II 2000)
 - (b) Describe the principle, working of High Volume Instrument (HVI).
 - (c) Describe in detail the principle and working of AFIS testing instrument.
- 6. Attempt any TWO : 16**
- (a) Describe dimensional stability of fabric to swelling & shrinkage.
 - (b) Explain the method for determining colour fastness to light.
 - (c) Briefly explain the principle and working of Tenso-jet and give comparison of Tensojet & Tenso-Rapid.
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