



**SF-8367**

**B. E. - III (Sem. - VI) (T.T.) Examination**  
**May/June - 2011**  
**Physical Testing**

Time : 3 Hours]

[Total Marks : 100

**Instruction :**

नीचे दशांशवैध निशान्तीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<b>B. E. - 3 (SEM. - 6) (T.T.)</b>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<b>PHYSICAL TESTING</b>	<input type="text"/>
Subject Code No. : <input type="text"/> 8 <input type="text"/> 3 <input type="text"/> 6 <input type="text"/> 7	<input type="text"/>
Section No. (1, 2,.....) : <input type="text"/> 1&2	
	Student's Signature

**SECTION - I**

- 1 (a) State true of false : 5
- (i) One of the objectives of testing is research.
  - (ii) Biased sample is one in which factors other than change come into play.
  - (iii) Moisture regain is measured under standard atmospheric conditions.
  - (iv) Pill is a small entangled ball of surface fibers on the fabric.
  - (v) Bursting strength tester is used for parachute fabrics.
- (b) Define the following : 5
- (i) Moisture Regain
  - (ii) Moisture Content
  - (iii) Relative Humidity
  - (iv) Water Proof
  - (v) Water repellent.
- (c) Explain in detail the core sampling method for raw cotton. 10
- 2 Explain in detail the 'STELOMETER' in detail with neat diagram. 15

**OR**

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[Contd...

- 2 Explain in detail the Uster Evenness Tester in detail with neat diagram. 15
- 3 Write short notes on any **three** : 15
- (i) Spray Test
  - (ii) Martindale Abrasion Tester
  - (iii) Hygrometers
  - (iv) Varimeter

### SECTION - II

- 4 (a) Answer the following objective questions : 10
- (i) Define Effective length and Model Length. 2
  - (ii) Mature fibers with a well developed cell wall and pronounced convolutions in the raw state become \_\_\_\_\_ after swelling. 1
  - (iii) Define Degree of Cell wall thickening. 1
  - (iv) What is Maturity Ratio ? 1
  - (v) \_\_\_\_\_ fibers appear ribbon like after swelling. 1
  - (vi) Define twist. 1
  - (vii) What is 'Crimp rigidity' of yarn ? 1
  - (viii) \_\_\_\_\_ = Denier X 0.1111. 1
  - (ix) Define in short Air Permeability. 1
- (b) Explain in detail about "Shirley" Stiffness tester. 10
- 5 (a) Explain in detail about Maturity of cotton. 10
- (b) Describe Air Flow methods for fiber fineness. 5

### OR

- 5 (a) Write in detail about measurement of trash content by the Shirley Analyser. 10
- (b) Explain in detail the H.A.T.R.A. crimp rigidity test. 5
- 6 Write short notes on any **three** of the following : 15
- (a) Explain in detail about Fibrograph.
  - (b) Beesley Balance
  - (c) The Drapemeter
  - (d) 'Take-up' twist tester.