Seat No.:	Enrolment No
GUJARAT TECHNOLOGICAL UNIVERSITY	

BE – SEMESTER-VI • EXAMINATION – SUMMER- 2015

Subject code: 162903 Date: 08/05/2015 **Subject Name: Physical Testing** Time: 10.30AM-01.00PM **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Explain working of an instrument based on the air flow principle to measure 07 Q.1 fibre fineness. (b) Explain with neat sketch standard conditioning oven to measure moisture 07 content and moisture regain of cotton sample. Explain measurement of trash content by Shirley Trash Analyser. **Q.2** 07 Explain measurement of fibre length by digital fibrograph. 07 **(b)** Briefly explain maturity test by caustic method. 07 Explain measurement of fibre bundle strength by Stelometer. Q.3 07 Explain the working of hydraulic bursting strength tester. 07 (a) Explain the principle of working of Uster Evenness Tester in detail. Q.3 07 (b) Explain with a neat diagram the measurement of bending length using the 07 Shirley Stiffness Tester. (a) Explain with a neat diagram the SPRAY test for fabrics. Q.4 07 **(b)** Explain with a neat diagram the Shirley Air Permeability Tester. 07 OR (a) Explain with a neat diagram the WIRA Crimp tester. Q.4 07 **(b)** Explain with a neat diagram the Martindale Abrasion Tester. 07

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Explain the pendulum lever principle. Explain the working of Lea Tester.

(a) Explain with the help of a neat diagram the working of thickness tester.

**(b)** Explain with a neat diagram the Scott Inclined plane tester.

**(b)** Explain with a neat diagram the photoelectric evenness tester.

Q.5

Q.5