

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016****Subject Code:2162807****Date:21/05/2016****Subject Name: Chemical & Physical Analysis of Textiles****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) State various methods employed for the removal of moisture from fibres. **07**
Discuss any two in detail.

(b) Discuss in detail the behaviour of different fibres in burning test. **07**

Q.2 (a) Write a brief note on: Determination of size content on textiles. **07**

(b) Discuss how the fibre identification can be done using different chemical reagents. **07**

OR

(b) Discuss how the microscopic methods are used for analysis of fibre identification. **07**

Q.3 (a) Enumerate various methods of measurements of twist in yarn. Describe the Rock bank twist tester in detail. **07**

(b) Explain with neat sketch the working of the air permeability tester. **07**

OR

Q.3 (a) Explain with neat sketch about wet & dry bulb hygrometer. **07**

(b) Write a brief note on: Measurement of maturity of cotton fibres. **07**

Q.4 (a) Give the significance of measuring the tearing strength of fabric. Explain with neat sketch the working of Elemendrops tearing strength tester. **07**

(b) State various properties of fabric determining the fabric handle. Name the instruments used to assess them and describe any one in detail. **07**

OR

Q.4 (a) Explain with neat sketch the principle, construction & working of fibre trash analyzer. **07**

(b) Define the following terms: (i) Breaking Load & Tenacity, (ii) Stress & Strain. **07**

Q.5 (a) Discuss various methods used for determination of the blend content of textiles. **07**

(b) Give the significance of measuring the blend content in textiles and also discuss the different factors affecting the accuracy of quantitative analysis of them. **07**

OR

Q.5 (a) With the help of neat sketches, explain the different methods used to find the Melting point of textile fibres. **07**

(b) Write a brief note on: Determination of refractive index and birefringence of textiles. **07**
