

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. Vth Semester–Examination – Nov-Dec- 2011

Subject code: 152804

Subject Name: Chemical and Physical Analysis of Textiles

Date: 29/11/2011

Time: 02:30 pm – 05:30 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) With the help of neat sketch, explain briefly the bursting strength Tester. 07

(b) Describe the determination of melting point of textile fibers. 07

Q.2 (a) Which methods are employed for moisture removal? Discuss any two methods in detail. 07

(b) Which factors affecting the accuracy of quantitative analysis of blends? Explain in detail correction factor. 07

OR

(b) With the help of neat sketch, explain briefly the Beam Balance principle & hence describe how bundle fiber strength is obtained using Pressley bundle fiber strength tester. 07

Q.3 (a) Write a brief note on “Maturity of Cotton Fibers.” 07

(b) Explain in detail about determination of the formaldehyde in textile material. 07

OR

Q.3 (a) Describe how the wrap reel & Knowles balance are used for count measurement. 07

(b) Explain the determination of size content used for textiles. 07

Q.4 (a) Explain briefly the Fabric thickness Gauge. 07

(b) Describe in detail about moisture in Textile fibers. Explain sorption of water by fibers. 07

OR

Q.4 (a) Explain briefly the Wet & Dry Bulb hygrometer. 07

(b) Which methods can be used for quantitatively determination of blends content of textile? Explain any two methods in detail. 07

Q.5 (a) Briefly describe the rock bank twist tester. 07

(b) Describe effect of different chemical reagents on Cotton, Silk, Nylon, Polyester. Also discuss about burning test for the same. 07

OR

Q.5 (a) With the help of neat sketch, explain briefly the Drape meter. 07

(b) What is the desiccant? Explain its working in detail. 07
