

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2013

Subject Code: 182802**Date: 13/05/2013****Subject Name: Technological Advances in Textile Processing****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) Discuss elaborately the application of biotechnology in textile desizing. **07**
(b) Discuss the classification of enzymes with their different textile applications. **07**
- Q.2** (a) Explain the applications of biotechnology in bleaching of cellulosic materials. **07**
(b) Justify the position of biotechnology in processing of polyester. **07**
- OR**
- (b) Explain the mechanism of enzyme action. Discuss the bio polishing process of denim fabrics. **07**
- Q.3** (a) Write a short notes on: Enzymatic antifelting of wool **04**
(b) Write notes on: Enzymatic degumming of silk **04**
(c) Explain the term 'Plasma'. Enlist the various techniques for generation of plasma and discuss the most used technique for its generation. **06**
- OR**
- Q.3** (a) Justify the position of plasma technology in modification of cellulose. **07**
(b) Discuss the role of plasma technology in processing of polypropylene and polyester fibers. **07**
- Q.4** (a) Explain the technical aspects of Nano technology. Enlist various textile applications of nanotechnology. Discuss in detail the Lotus Leaf Effect. **07**
(b) Describe the process for production of nano fibers. **07**
- OR**
- Q.4** (a) Explain the importance of ultra sound technology in textile processing. Discuss its application in textile coloration. **07**
Q.4 (b) What is super critical CO₂? Discuss the application of super critical CO₂ in dyeing of Polyolefin fibers. **07**
- Q.5** (a) Describe with neat diagram the dyeing polyester process using super critical CO₂. **07**
(b) Explain the concept of micro encapsulation. Describe the application of encapsulation using cyclodextrin for fragrance in textiles. **07**
- OR**
- Q.5** (a) Describe various technological aspects of foam dyeing. State its advantages over conventional processes. **07**
(b) Discuss the probable use of electro chemistry in textile coloration. **07**
