

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 182802****Subject Name: Technological Advances in Textile Processing****Date: 12/05/2012****Time: 10.30 am – 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) Justify the position of biotechnology in scouring of cellulosic textile materials. **07**
(b) Discuss the classification of enzymes with their different textile applications. **07**
- Q.2** (a) Explain the probable applications of biotechnology in processing of polyester. **07**
(b) Elaborately discuss the suitability of enzymes in processing of wool and silk. **07**
- OR**
- (b) Discuss the concept and process of Bio polishing denim fabrics. **07**
- Q.3** (a) What is Plasma? Classify the techniques for generation of plasma. Explain how plasma technology can contribute to Green technology. **07**
(b) Elaborately discuss about suitability of plasma technology in modification of cellulose. **07**
- OR**
- Q.3** (a) Discuss the role of plasma technology in processing of poly propylene and polyester fibers. **07**
(b) Explain the statement “Scale Changes Everything”, in context to Nano technology. **07**
- Q.4** (a) Discuss the technological aspects of producing nano emulsion and its application in textile processing. **07**
(b) Describe the process of electro spinning for producing nano fibers. **07**
- OR**
- Q.4** (a) What is meant by Ultrasonic waves? Discuss the probable use of ultra sound technology in textile coloration. **07**
(b) Explain the term “super critical fluid”. Enlist various super critical fluids. Justify suitability of super critical carbon dioxide in textile processing by discussing its properties. **07**
- Q.5** (a) Describe the process of dyeing polyester using super critical CO₂ with the neat sketch of dyeing apparatus. **07**
(b) Describe the method to carry out micro encapsulation of fragrances and its application in textile processing. **07**
- OR**
- Q.5** (a) Elaborately discuss the concept of Foam Dyeing Technology, its application in textile processing and its special advantageous features. **07**
(b) Discuss the suitability and scope of electrochemical dyeing with process, its advantages and disadvantages. **07**
