

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE – SEMESTER–VIII • Remedial EXAMINATION – WINTER 2013**

**Subject Code: 182903****Date: 17/09/2013****Subject Name: Technical Textiles - II****Time: 03:00 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 diagrams, explain some of the applications of wool fibres in medical textiles. **07**
- (b) Discuss the application of geotextile as reinforcement in soil. **07**
- Q.2** (a) State and explain different types of implantable materials in detail. **07**
- (b) Explain different types of disposable healthcare products made of nonwoven fabrics with the help of neat diagrams. **07**
- OR**
- (b) Explain the concept of Nanotechnology. **07**  
 Nanotechnology also has real commercial potential for the textile industry. Give reason.
- Q.3** (a) State and explain the applications of 3 – layer silicon laminated fabrics and activated carbon cloth. **07**
- (b) Define extra-corporeal materials. Explain some of these materials in detail with the help of neat diagrams, wherever required. **07**
- OR**
- Q.3** (a) With the help of neat diagrams, explain roll, steep angle and pipe conveyor belts in details. **07**
- (b) With the help of neat diagrams, explain intelligent textiles used for medical applications. **07**
- Q.4** (a) Explain different structures of Glass Reinforced Plastic. Also, state the properties and applications of glass reinforced plastics. **07**
- (b) With the help of neat diagrams, explain different types of industrial fabrics used for electrical cables. **07**
- OR**
- Q.4** (a) Enlist the techniques used to apply nano-particles. Discuss in brief any one of them. **07**
- Q.4** (b) Discuss about flame retardant fabrics. Also, discuss characteristics and raw materials for flame retardant fabrics. **07**
- Q.5** (a) Discuss about Self-Cleaning fabrics. **07**
- (b) What do you mean by : i. Geosynthetic Clay liner ii. Geonets. **07**
- OR**
- Q.5** (a) Discuss the filtration function of geotextile. **07**
- (b) Nylon 6,6 is preferred over Polyester for Air Bag. Give reason. **07**

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