

**GUJARAT TECHNOLOGICAL UNIVERSITY****M. E. - SEMESTER – III • EXAMINATION – WINTER • 2014****Subject code: 732502****Date: 27-11-2014****Subject Name: Technical Textile****Time: 02:30 pm - 05:00 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) Which processes are to be carried out and the technical textile products available from monofilament and tape/film? **07**
- (b) Enlist various methods of laying the fibers for making nonwovens. Write briefly on air laying and wet laying. **07**
- Q.2** (a) Write on distinctive features of the cards used for producing batt to be used for making nonwoven fabric. **07**
- (b) Write briefly on various application areas of technical textiles. **07**
- OR**
- (b) Write short note on following **07**
- (i) Stitch Bonding
- (ii) Hydroentanglement
- Q.3** (a) With reference to water proof breathable fabric, write on hydrophilic coating as one of the processes. Also write on ways of applying coating to the fabric for the same purpose. **07**
- (b) Which are the considerations for selecting particular fabric design for solid-liquid filter fabrics? **07**
- OR**
- Q.3** (a) Write in short on spun laid, spunbond and melt blown type nonwovens. **07**
- (b) Write briefly on various application areas of medical and geotextiles. **07**
- Q.4** (a) How densely woven fabrics can be used as water proof breathable fabrics? **07**
- (b) Compare and contrast between parallel and cross laying. **07**
- OR**
- Q.4** (a) Write a short note on face masks and antimicrobial dressing. **07**
- (b) Write in short on use of geotextiles for drainage purposes. **07**
- Q.5** (a) With reference to surgical apparel write on: **07**
- (i) Factors affecting permeability
- (ii) Factors affecting capillary absorption.
- (b) Explain cleaning mechanism with reference to reverse air and pulse jet cleaning. **07**
- OR**
- Q.5** (a) Write a short note on use of Glass fiber in various applications of technical textiles. **07**
- (b) Which are the distinct features of needle punching process? **07**

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