

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER- VI • EXAMINATION – WINTER 2014****Subject Code:162904****Date:05/12/2014****Subject Name: Technical Textiles-I****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) Give classification of technical textiles. With the help of neat diagram, explain wet laid web formation method in detail. **07**
- (b) Compare foam bonding with spray bonding method. With the help of neat diagram, explain foam bonding method in detail. **07**
- Q.2** (a) Write short notes on : 1. Asbestos fibres 2. Kynol fibres **07**
- (b) Compare parallel laid web formation with cross laid web formation method. With the help of neat diagram, explain parallel laid web formation method in detail. **07**
- OR**
- (b) State some of the applications of needle punch fabrics. Explain the needle punching process with the help of neat diagram. **07**
- Q.3** (a) State some of the requirements of efficient working of stitch bonding process. With the help of neat diagram, explain the principle of working of stitch bonding process. **07**
- (b) State the requirements of card used for production of nonwoven fabrics. Explain some of the features of CA 11 card in detail. **07**
- OR**
- Q.3** (a) What are medical textiles ? Explain some of the areas of applications of medical textiles. **07**
- (b) Discuss, in detail, some of the useful properties of filter fabrics. **07**
- Q.4** (a) State the object of tyre cord. Explain, in detail, the method of manufacturing of tyre cord fabric. **07**
- (b) Explain the method of production of glass fibres. Also, state some of their important properties. **07**
- OR**
- Q.4** (a) What are automotive textiles ? State and explain some of the most important areas of applications of automotive textiles. **07**
- (b) Compare aramid fibres with carbon fibres. Explain the method of production of carbon fibres. **07**
- Q.5** (a) Discuss the application of Teflon as a coating material. **07**
- (b) With the help of neat sketch, explain the process of coating with the help of a lick roll. **07**
- OR**
- Q.5** (a) Name the techniques which incorporate coating using dry compound. Hence explain any one of them in detail. **07**
- (b) State the factors to be considered to select the coating method to be used. **02**
- (c) Write a brief note on “Rotary Screen Coating”. **05**
