Seat No.: _____ Enrolment No._____

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**

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