Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – SUMMER • 2014

Subject Code: 162904 **Date: 28-05-2014**

Subject Name: Technical Textiles-I

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)**	State and explain methods of production of parallel and cross laid webs with the help of neat diagrams.	**07**
	(b)	Discuss the important properties required in a Filter fabric.	**07**
Q.2	**(a)**	Give classification of web bonding techniques. With the help of neat diagram, explain thermal bonding technique in detail.	**07**
	(b)	State the difference between spunbond and meltblown web formation method. With the help of neat diagram, explain spunbond fabric formation method in detail.	**07**
		OR	
	(b)	What is the function of Tyre cord ? Briefly discuss the important stages for manufacturing of finished Tyre cord fabric.	**07**
Q.3	**(a)**	Classify needle punching process. With the help of neat diagram, explain the method of manufacturing of said fabric in detail.	**07**
	(b)	State some of the advantages of spunlace fabric over other nonwoven fabrics. With the help of neat diagram, explain the principle of working of spunlace fabric formation machine.	**07**
		OR	
Q.3	**(a)**	Compare spray bonding with foam bonding process. With the help of neat diagram, explain the spray bonding process in detail.	**07**
	(b)	State some of the important applications of each segment of technical textile.	**07**
Q.4	**(a)**	Write short note on following : 1. Green House 2. Mulches	**07**
	(b)	Give classification of Medical textiles with examples. Also list out various fibers used in Medical textiles.	**07**
		OR	
Q.4	**(a)**	Briefly describe manufacturing and application of glass fiber.	**07**
	(b)	Write short note on : 1. Asbestose fibre 2. Kynol fibres	**07**
Q.5	**(a)**	Discuss the application of Hypalon as a coating material.	**07**
	(b)	With the help of neat sketches, explain how coating is done with the help of lick rollers.	**07**
		OR	
Q.5	**(a)**	With the help of neat sketches, describe how spray coating is done.	**07**
	(b)	State the different methods of adhesive coating. Discuss any one method used for coating with a dry compound.	**07**

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