

# GUJARAT TECHNOLOGICAL UNIVERSITY

## B. E. SEMESTER: VI

### TEXTILE TECHNOLOGY

Subject Name: **Technical Textile – I**

Subject Code: **162904**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Practical (I)
5	2	0	7	70	30	50

Sr. No.	Topic	Hrs	Ref Book
1	Introduction to technical textiles, introduction to different applications of technical textiles.	3	Handbook of Technical Textile Horrocks & Anand
2	Production of speciality fibres for technical textiles, Glass fibre & its manufacturing process, Aramid fibres, Metal fibres, Asbestos fibres –their types & properties, KYNOL fibres, Basofil fibres, Carbon fibres, Production and manufacturing of Tyre Cords	10	1. Technical textiles –NCUTE 2. Handbook of Technical Textile Horrocks & Anand
3	Manufacturing of Non-Woven fabrics: Introduction, Features of CA 10/11 card, Batt forming, Needle Punching-Machinery used.	10	1. Technical textiles –NCUTE 2. Handbook of Technical Textile Horrocks & Anand
4	Filter Fabrics and Coated Fabrics : Types of filter fabrics, Non-woven, pile fabric, Production and application of coated fabrics, Materials used for coating: - a) Rubber - Natural and Synthetic b) PVC c) Polyurethane PV, Types/Methods: Knife coating, Mayer Rod Coater, Kiss coater, Reverse roll coater, Grauvre coater, Transfer coating etc., Hot- melt coating etc.	7	1. Technical textiles –NCUTE 2. Handbook of Technical Textile Horrocks & Anand
5	Manufacturing of Functional Fabrics: Useful properties for Filter fabrics, Manufacturing areas - Medical textiles, Protective textiles, Agricultural, Environmental, Geo, Industrial, Automotive textiles, Tyre cord, their Requirements.	9	1. Technical textiles –NCUTE 2. Handbook of Technical Textile Horrocks & Anand

	<b>Total</b>	<b>39</b>	
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### **Reference Books:**

1. J.N.Mandal 'A goal for Geo-textiles', Proceedings Third International conference On Geo-textiles, April 1986, Austria.
2. Pushpa Bajaj and A.K. Sngupta "Industrial Applications of Textiles; Textiles for filtration and coated fabrics", Textiles Progress, Vol.14, No. 1985.
3. I.P.Ehrler and H.Sreiber ITB Non-Wovens Industrial Textiles-March 1996.
4. P.Bottcher, ITB Non-Wovens-Industrial Textiles, March 1996.
5. P.R.Berthewas etal, J Coated fabrics. Oct 1998.