B E III Textile Technology: Semester – V

Subject Name: Textiles in Civil Engineering **Subject Code: BTTT15603**

Type of course: Open Elective Course II

Prerequisite (if any): Students should have knowledge of basics of Civil Engineering.

List of Courses where this course will be prerequisite

Rationale: (should also include Description of the relevance of this course in the Program)

Teaching and Examination Scheme:

TEACHING SCHEME				Theory Marks			Practical Marks		Total
L	T	P	C	TEE	CA1	CA2	TEP	CA3	
3	0	0	3	60	25	15			100

CA1: Continuous Assessment (assignments/projects/open book tests/closed book tests CA2: Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems TEE: Term End Examination TEP: Term End Practical Exam (Performance and viva on practical skills learned in course) CA3: Regular submission of Lab work/Quality of work submitted/Active participation in lab sessions/viva on practical skills learned in course

Content:

Sr. No.	Content	Total Hrs
1	Introduction to Technical Textiles	2
2	Geosynthetics: types	3
3	Introduction to geotextiles	2
4	Function and application areas of geotextiles	4
5	Fibres and Fabric selection criteria for geotextiles	5
6	Geosynthetics in Civil Engineering: material properties of geosynthetics, durability of geosynthetics, use of geosynthetics as filters in civil engineering, The use of geosynthetics as separators in civil engineering, landfill applications	29
		45

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10	25	30	5	0	0

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

Sr no	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1.	Geosynthetics in Civil Engineering	Edited by R.W.Sarsby	Woodhead Publishing Ltd., ISBN-13-978-1-85573-607-8	2007	
2	Handbook of Technical Textiles	Edited by A R Horrocks & S C Anand	Woodhead Publishing Ltd., ISBN 1 85573 385 4	2000	

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Analyze about technical textiles	5
CO-2	Analyze about Geosynthetics	10
CO-3	Analyze about Geotextiles	5
CO-4	Explain Function and application areas of geotextiles	15
CO-5	Describe Fibres and Fabric selection criteria for geotextiles	15
CO-6	Analyze applications of Geosynthetics in Civil Engineering	50

List of Open learning website: https://nptel.ac.in, brochures and manuals of machine manufacturer, World Wide Web, Google Search Engine etc.