

# GUJARAT TECHNOLOGICAL UNIVERSITY

## B. E. SEMESTER: VI

### TEXTILE TECHNOLOGY

Subject Name: **Energy Conservation & Pollution Control in Textile Industry**

Subject Code: **162905**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Practical (I)
4	0	0	4	70	30	50

Sr. No.	Topic	Hrs.	Text Books
1	National energy situation: Energy scene in India.	02	7 <sup>th</sup> five year plan- Vol-II
2	Need for energy conservation, an over view of energy	02	Asian Textile
3	Scope of utilizing non conventional energy resources.	01	Asian Textile
4	Need for energy conservation in Textile industry.	02	Asian Textile
5	Energy auditing: Energy audit, data collection and analysis of current situation, Designing an audit,	02	7 <sup>th</sup> five year plan- Vol-II
6	Energy conservation in Ring frame.	04	Energy conservation in ring spinning- SITRA
7	Energy conservation in sizing.	02	Energy conservation in sizing by
8	Energy conservation in wet processing.	02	Energy economy and environment in textile wet processing part-I by
9	Boiler controls, belt drives, V.S. drives, power factor corrections.	01	7 <sup>th</sup> five year plan- Vol-II
10	Energy conservation in lighting.	01	Joint Technological Conference – ATIRA, BTRA, NITRA, SITRA
11	Energy conservation in humidification	01	
12	Waste heat recovery systems	02	
13	Air pollution, dust pollution	03	
14	Water pollution- effluents	03	
15	Noise pollution	02	A Seminar on Pollution Problems and Prospects in Textile Mills & Process Houses –National Productivity Council
16	Environmental regulations (statutory requirements)	02	
18	Technological developments for reducing/controlling environmental problems	02	
19	Solid hazardous waste managements & management of waste water treatment plants	02	Effective Environmental Management through ISO 14001 – USAID &
20	Environmental management for Textile Industry- environmental management system - ISO 14000	02	
21	Environment impact assessment	02	Larry Canter – TATA Mcgraw hill

**Reference Books:**

1. Energy conservation in Ring spinning – SITRA
2. 25<sup>th</sup> Joint Technological Conference – ATIRA, BTRA, NITRA, SITRA - Proceedings
3. A Seminar on Pollution Problems and Prospects in Textile Mills & Process Houses –National Productivity Council
4. Effective Environmental Management through ISO 14001 – USAID & CII
5. Environment impact assessment by Larry Canter – Tata Mcgraw Hill