Register Number:……..

KUMARAGURU
college of technology
character is life

B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Sixth Semester

TEXTILE TECHNOLOGY

U18TXE0005: Sustainability in Textile Manufacturing and Material

COURSE OUTCOMES

CO1: Understand the green process methods in textiles.

CO2: Discuss about various concepts of eco-friendly chemical processing

CO3: Explain about the quality standards and assessment of eco-textiles.

CO4: Summarize about the various organic and sustainable textiles.

CO5: Explain about the role of recycling and upcycling.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	What is called Green Chemistry?	CO1	[K_1]
2.	Why is conventional chemical manufacturing processes unsustainable?	CO1	[K_1]
3.	How are hazardous substances categorized based on their chemical behaviours?	CO2	[K_1]
4.	What is eco-labelling?	CO2	[K_1]
5.	What is the purpose of GOTS?	CO3	[K_1]
6.	What is EMS and its role?	CO3	[K_1]
7.	What is organic cotton?	CO4	[K_1]
8.	What is PLA made of?	CO4	[K_1]
9.	What is the purpose of LCA?	CO5	[K_1]
10.	What is CSR? Why is it important for brands?	CO5	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Explain the renewable and non-renewable materials.	8	CO1	[K_2]
	b)	Apply your understanding towards REACH standard and explain, how does it work?	8	CO1	[K_3]
12.	a)	Explain the various toxic and harmful substances used in cotton growing, sizing, dyeing & printing and finishing process.	8	CO2	[K_2]
	b)	Examine various energy-efficiency measures and technologies for wet-Processing.	8	CO2	[K_4]
13.	a)	Explain the meaning of toxic dyes, with suitable examples.	8	CO3	[K_2]
	b)	List the benefits of OEKO-TEX standard and explain the certification steps.	8	CO3	[K_4]
14.	a)	Explain the meaning of PLA fibre and its properties.	8	CO4	[K_2]
	b)	Discuss the ways and means to reduce carbon footprint in the textile industry.	8	CO4	[K_6]
15.	a)	Discuss the importance of recycling or upcycling in the fashion and apparel industry.	8	CO5	[K_2]
	b)	Explain your understanding towards ethical sustainable clothing.	8	CO5	[K_5]
16.	a)	Explain the different types of textile waste and their causes of generation.	8	CO4	[K_2]
	b)	Discuss how textile firms can fulfil their social responsibility towards various parties.	8	CO5	[K_4]

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