Register Number:……..

KUMARAGURU
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B.E/B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Fourth Semester

TEXTILE TECHNOLOGY

U18TXI4202 : Fabric Manufacture -II

COURSE OUTCOMES

CO1: Discuss the concept of shuttle less loom and its evaluation.
CO2: Discuss the concept and mechanism of shuttle less weaving machine.
CO3: Discover the nonwoven technology.
CO4: Describe the various nonwoven web laying and web bonding systems.

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

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

1.	Recall the limitations of shuttle looms.	CO1	[K_1]
2.	Infer the nonwoven web laying principle.	CO1	[K_2]
3.	Show the features of torsion bar picking mechanism.	CO2	[K_1]
4.	Identify the difference between tip and loop transfer in Rapier loom.	CO2	[K_3]
5.	List the importance of profile reed.	CO2	[K_1]
6.	Relate the water quality parameters with for water jet looms.	CO2	[K_2]
7.	Recall the web formation system with examples.	CO3	[K_2]
8.	Identify the raw material requirements for spun bonding process.	CO3	[K_1]
9.	Show the structure of needle used in Needle Punching process.	CO4	[K_2]
10.	Infer the thermal bonding principle with suitable example.	CO4	[K_2]

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

11.	a)	Compare the woven, knitted and nonwoven fabric formation methods.	6	CO1	[K_3]
	b)	Illustrate the formation of unconventional selvedges in shuttleless loom process.	10	CO1	[K_3]
12.	a)	Analyze the weft insertion cycle in rapier loom with a neat sketch.	8	CO2	[K_4]
	b)	Outline the weft insertion cycle in projectile loom with a neat sketch.	8	CO2	[K_2]

13.	a)	Describe the principle and operation of air jet weaving machines with neat diagram.	8	CO3	[K_3]
	b)	Explain the principle and operation of circular weaving machines with neat diagram.	8	CO3	[K_2]
14.	a)	Outline the principle and procedure for dry laid carded web formation with neat sketch.	8	CO4	[K_2]
	b)	With neat sketch explain the principle and procedure for polymer laid web formation.	8	CO4	[K_2]
15.	a)	With neat sketch, explain the principle and operation of Hydro entanglement nonwoven bonding process.	8	CO5	[K_2]
	b)	Explain the principle and operation of chemical bonding nonwoven process with neat sketch.	8	CO5	[K_2]
16.	a)	Explain the principle and method of Air laid web formation technique.	10	CO4	[K_2]
	b)	Summarize the properties and applications of Air laid nonwoven fabrics.	6	CO4	[K_2]

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