Register Number:……..

B.E/B.TECH DEGREE EXAMINATIONS: APRIL /MAY 2024

(Regulation 2018)

Fourth Semester

FASHION TECHNOLOGY

U18FTT4001: Fabric Formation Technology

COURSE OUTCOMES

CO1: Acquaint with the objectives and acquire knowledge of working principles of machinery used for preparation of yarn for weaving.

CO2: Describe the working principle of beam preparatory machines for weaving.

CO3: Acquire knowledge in the selection of sizing ingredients for different fibres.

CO4: Understand the objectives and working principles of shuttle and shuttleless looms.

CO5: Develop knowledge in the selection of suitable preparatory processes for weaving.

CO6 Acquire knowledge on nonwovens manufacturing techniques and its applications.

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

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

1.	Classify winding machine with respect to warp winding and weft winding.	CO1	[K_U]
2.	List the yarn quality parameters considered for weaving process.	CO1	[K_R]
3.	Distinguish between beam warping and sectional warping.	CO2	[K_{AP}]
4.	What is single end sizing? Furnish their merits.	CO3	[K_R]
5.	Categorise the shuttle loom with respect to their features.	CO4	[K_{AP}]
6.	Prioritise the loom requirements for the production of terry fabric in shuttle loom.	CO4	[K_E]
7.	List the types of shuttle less loom and what is multi-phase weaving?	CO4	[K_R]
8.	Write the significance of Loom data system in weaving Industry.	CO5	[K_R]
9.	Classify the non-woven fabric based on principle of web formation.	CO6	[K_{AN}]
10.	Furnish the raw material selection criteria for hydro-entangling web formation.	CO6	[K_R]

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

11.	a)	Explain the working principle of cone winding machine with neat yarn passage	8	CO1	[K_U]

		illustration.			
	b)	Elucidate the working principle of mechanical and electronic yarn clearer with neat diagram.	8	CO1	[K_U]
12.	a)	Explain the process of yarn to beam conversion in beam warping machine with suitable illustration.	8	CO2	[K_U]
	b)	Explain with a neat sketch, the working of a sectional warping machine.	8	CO2	
13.	a)	Describe the objectives of basic motions in shuttle looms.	8	CO4	[K_U]
	b)	Categorise shedding mechanisms and explain the working principle of negative tappet shedding with neat sketches.	8	CO4	[K_U]
14.	a)	Describe the basic principle of projectile weaving machine suitable for cotton fabric production with necessary diagrams.	8	CO5	[K_{AN}]
	b)	Compare and contrast between the techno-economics aspects of various shuttleless looms.	8	CO5	[K_{AN}]
15.	a)	Discuss the manufacturing principle of needle punched non-woven fabric with simple illustration.	8	CO6	[K_U]
	b)	Explain the process and principle of spun bonded non-woven fabric production with neat sketch.	8	CO6	[K_U]
16.	a)	Tabulate various control systems used in sizing machine and explain the principle of any two control system with their principle diagrams.	8	CO3	[K_U]
	b)	Discuss the various sizing ingredients with their purposes for sizing cellulosic fibre fabrics.	8	CO3	[K_{AP}]

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