



B.E./B.TECH. DEGREE EXAMINATIONS: NOV / DEC 2024

(Regulation 2018)

Fourth Semester

FASHION TECHNOLOGY

U18FTI4204: Fabric Structure and Design

COURSE OUTCOMES

- CO1: Illustrate the elements of woven fabric design.
 CO2: Develop elementary fabric weave structures.
 CO3: Explain colour theory and modifications of colour.
 CO4: Develop creative weave designs using colour and weave effects.
 CO5: Develop structures for complex woven fabric and analyse their construction.
 CO6: Explain the characteristics, properties, and applications of woven fabric structures.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions: -

PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

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|----------------------------------------------------------|-----|-------------------|
| 1. List the various types of draft. | CO1 | [K ₂] |
| 2. Compare warp rib and weft rib structures. | CO1 | [K ₂] |
| 3. Brief the basic characteristics of twill weaves. | CO2 | [K ₂] |
| 4. Highlight the feature of crepe weave. | CO2 | [K ₂] |
| 5. What is hue and saturation. | CO3 | [K ₂] |
| 6. List the four types of color schemes. | CO3 | [K ₂] |
| 7. Classify backed fabrics. | CO4 | [K ₂] |
| 8. Differentiate between wadded & stitched double cloth. | CO5 | [K ₂] |
| 9. Outline on pile fabrics and its classification. | CO6 | [K ₂] |
| 10. Classify double cloth based on their structure. | CO6 | [K ₂] |

Answer any FIVE Questions: -

PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

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| 11. a) Construct the design for the satin – sateen checked fabric. Assume necessary | 8 | CO1 | [K ₄] |
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	parameters.			
	b) Construct the design, draft lifting plan for the Brighton ordinary honeycomb structure with the repeat size of 12x12.	8	CO1	[K ₄]
12.	a) Construct a welt and pique structure with STITCH weft: FACE weft ratio →2:6	8	CO2	[K ₄]
	b) Draw the design, draft, peg plan for the Huck – a – back with the repeat size of 8 * 8.	8	CO2	[K ₄]
13.	Summarize on light and pigment theory, application & colour and weave effects, methods of colour applications.	16	CO3	[K ₂]
14.	a) Construct a non-reversible warp backed cloth with the following details.	8	CO4	[K ₄]
	<ul style="list-style-type: none"> • Face weave: 3/1 Twill, • Back weave: 2/2 Twill and • F: B = 1:1 			
	b) Construct the design of extra weft figuring with two colours. Assume the necessary parameters.	8	CO4	[K ₄]
15.	a) Illustrate the design of corduroy velveteen (v shape) using the following details.	8	CO5	[K ₄]
	<ul style="list-style-type: none"> • Ground weave: Plain • Ground: Pile weft ratio = 1:2 • Repeat Size: 12 Ends X 6 Picks • Draw the uncut and cut cross section also. 			
	b) Illustrate the design of plain back velveteen using the following details.	8	CO5	[K ₄]
	<ul style="list-style-type: none"> • Ground weave: Plain • Pile weave: 1/2 Twill • Ground: Pile weft ratio = 1:3 • Draw the uncut and cut cross section also. 			
16.	Design a double cloth using the following details	16	CO6	[K ₄]
	Face weave: 2/2 Twill			
	Back weave: 3/1 Twill			
	Face end: Wadding end: Back-end ratio: (F: W: B) =1:1:1			
	Face weft: Back weft Ratio = 1:1			
	Type of stitch: Warp wadded double cloth			
