



B.TECH. DEGREE EXAMINATIONS: APRIL / MAY 2023

(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. Enlist the various types of draft. | CO1 [K ₂] |
| 2. Classify the derivatives of plain weave structures. | CO1 [K ₂] |
| 3. List the basic characteristics and types of twill weaves. | CO2 [K ₂] |
| 4. Highlight the features of crepe weave. | CO2 [K ₂] |
| 5. Define hue, saturation & value. | CO3 [K ₂] |
| 6. Enlist the four types of color schemes. | CO3 [K ₂] |
| 7. Summarize the various types of design repeats produced through dobby & jacquard. | CO4 [K ₂] |
| 8. Bifurcate 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, draft and lifting plan of satin & sateen weave of 8x8 with move no.3 | 8 | CO1 | [K ₄] |
| | b) | Construct the design, draft and lifting plan for the Ordinary honeycomb structure | 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 Mock leno with the repeat size of 12x12 | 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 reversible warp backed cloth with the following details.
Face weave: 3/1 Twill, Back weave: 1/3 Twill and F: B = 1:1 | 8 | CO4 | [K ₄] |
| | b) | Construct the design of extra warp 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. <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. | 8 | CO5 | [K ₄] |
| | b) | Illustrate the design of twill back velveteen using the following details. <ul style="list-style-type: none"> • Ground weave: 2/2 Twill (Weft Way Marking) • Pile weave: 1/3 Twill • Ground: Pile weft ratio = 1:4 | 8 | CO5 | [K ₄] |
| 16. | | Design a self-stitched double cloth using the following details. <ul style="list-style-type: none"> • Face weave: 2/2 twill • Back weave: 3/1 twill • Face: Back ratio: 1:1 (For both warp and weft way) • Type of stitch: face to back self-stitch | 16 | CO6 | [K ₄] |
