

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI EXAMINATION – SUMMER 2025****Subject Code: 3162913****Date: 30-05-2025****Subject Name: Advanced Fabric Structure and CAD****Time: 10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS	
Q.1	(a) Differentiate between Simple and Compound Fabrics.	03	
	(b) Describe the conditions for terry loop formation in detail.	04	
	(c) With the help of neat sketches, explain how basic sheds are formed using a flat steel doup with an eye.	07	
Q.2	(a) Give the characteristics and design of Russian cord.	03	
	(b) Construct birds eye and vertical hairline pattern using same weave.	04	
	(c) Describe the process of developing jacquard design using CAD.	07	
OR			
Q.3	(c) Construct checks pattern using weave and colouring of your choice.	07	
	(a) Construct shepherd's check.	03	
	(b) Construct design, draft, denting and cross section for 3 pick terry with both face piles.	04	
Q.3	(c) Explain how terry stripes are produced in single and multicolour.	07	
	OR		
	(a) Define the term Loop Sprouting and explain how it can be avoided.	03	
Q.4	(b) Explain the easing motions.	04	
	(c) Discuss the special mechanisms required for weaving of terry towels.	07	
	(a) Construct design and cross-section of Corduroy.	03	
Q.4	(b) Construct design for warp wadded double cloth (Face & Back weave 2/2., 1F:1B & 1F:1B:1W)	04	
	(c) Construct design, draft & Peg plan for reversible Warp Back cloth.	07	
	OR		
Q.4	(a) Construct design & cross-section of wire warp Pile.	03	
	(b) Construct design for Centre Weft stitched double cloth.	04	
	(c) What is Jacquard? List out the steps involved in construction of jacquard designing. Explain how development of jacquard design is carried out.	07	
Q.5	(a) Construct design and cross-section for Plain back velveteen (G:P= 1:4, Pile weave = 1/3)	03	
	(b) Construct only design for weft back cloth.	04	
	(c) Give the classification of double cloth. Construct only design for self stitched double cloth, (1F:1B, Face & Back weave 3/3 twill) & (stitching from Face to Back)	07	
OR			
Q.5	(a) Construct only design for Tubular double cloth	03	
	(b) Construct design for warp back cloth with wadded weft (Face weave=3/3, 1F:1B, 1F:1W)	04	
	(c) State different methods of tying of Treble cloth. Hence construct only design of Treble cloth using any one tying method.	07	
