Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2023

Subject Code:3162913 Date:14-07-2023

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)**	Construct only design for interchanging double cloth	**03**
	(b)	Construct design and cross-section of Corduroy.	**04**
	(c)	Construct only designs for the following: i. Weft Back cloth (1F:1B , Face weave- 2/2) ii. Design and cross-section for moleskin	**07**
Q.2	**(a)**	Construct only design for Tubular double cloth	**03**
	(b)	Construct only design for self stitched double cloth, (1F:1B ,Face & Back weave 3/3 twill) & (stitching from Back to Face)	**04**
	(c)	Construct design ,draft & Peg plan for reversible Warp Back cloth.	**07**
		OR	
	(c)	Explain Warp Pile produced on the face to face Principle, using single shuttle and double shuttle method.	**07**
Q.3	**(a)**	Construct design and cross-section for Plain back velveteen (G:P= 1:3, Pile weave = 1/2)	**03**
	(b)	Construct design for weft wadded double cloth (Face & Back weave 2/2., 1F:1B & 1F:1B:1W)	**04**
	(c)	State different methods of tying of Treble cloth. Hence construct only design of Treble cloth using any one tying method.	**07**
		OR	
Q.3	**(a)**	Construct design for warp back cloth with wadded weft (Face weave=3/3, 1F:1B, 1F:1W)	**03**
	(b)	Construct design for Centre warp stitched double cloth.	**04**
	(c)	What is Jacquard designing? List out the steps involved in construction of jacquard designing. Explain how length and width of the jacquard design is calculated.	**07**
Q.4	**(a)**	Explain the cramming and fringing mechanism used for terry weaving.	**03**
	(b)	Give the characteristics and design of Spider leno.	**04**
	(c)	With the help of neat sketches, explain how basic sheds are formed using a flat steel slotted doup in leno weaving..	**07**
		OR	

Q.4	**(a)**	What is Fast pile anchorage. Explain it with 5-Pick Terry.	**03**
	(b)	Construct all over design in simple weave & colouring.	**04**
	(c)	Describe the process of developing dobby design using CAD.	**07**
Q.5	**(a)**	State the function of shaker or jumper and easing motions in leno weaving.	**03**
	(b)	Construct Compound stripe pattern using weave and colouring of your choice.	**04**
	(c)	Construct design, draft, peg plan, denting and cross section for 4 pick terry with simultaneous face and back piles.	**07**

OR

Q.5	**(a)**	Briefly describe the types of terry fabrics.	**03**
	(b)	Give design, draft & peg plan for hairline & continuous line effects.	**04**
	(c)	With the help of design, explain how counter leno is incorporated in leno weaving.	**07**

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