

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V EXAMINATION – SUMMER 2025

Subject Code:3152903

Date:28-05-2025

Subject Name:Fabric Structure

Time:02:30 PM TO 05:00 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) Describe the characteristics of sateen weave & it's influence on fabrics characteristics.	03
	(b) Construct only designs of Satinette and Bucksin weave.	04
	(c) State the rules for constructing regular sateen weave. Justify the rules giving example.	07
Q.2	(a) Construct diamond weave on 12 x 12 using diamond base.	03
	(b) Compare extra weft figuring with extra warp figuring.	04
	(c) With the help of an example, explain how warp figuring is obtained using 1 continuous extra warp.	07
	OR	
	(c) Construct design & cross section for ordinary welt on 8 picks. Also modify the design & cross section for obtaining more prominence of the welt in the same.	07
Q.3	(a) Construct diaper weave using herringbone draft.	03
	(b) Construct only design for crepon bedford cord and also describe the characteristics of the fabric so produced.	04
	(c) With the help of design, explain how crepe weave can be constructed using superimposing principle.	07
	OR	
Q.3	(a) Construct warp corkscrew weave on 7 x 7.	03
	(b) Explain the fabric classification based on cover factor.	04
	(c) Explain how warp way distorted effect is obtained.	07
Q.4	(a) Give design of hopsack & rib combination.	03
	(b) Base Twill is (6/6). Construct Elongated Twill of 70° from it.	04
	(c) Construct design & cross section of regular & irregular weft rib each.	07
	OR	
Q.4	(a) Construct design and draft of Transposed Twill.	03
	(b) Explain with suitable diagram Relative firmness of twill weave.	04
	(c) Construct design, draft and pegplan of Huck-a-back.	07
Q.5	(a) Construct only design of Twilled hopsack.	03
	(b) Give design & denting of Mock-leno. Also list the enduse of the fabric so produced.	04
	(c) Explain with suitable designs, how herringbone twill can be produced in a economical way.	07

OR

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| Q.5 | (a) | Explain representation of design on point paper. | 03 |
| | (b) | Construct design, draft & pegplan of wavy/zigzag twill in horizontal pattern. | 04 |
| | (c) | What are the characteristics of Towelling fabric? Construct only design each of Honey Comb & Brighton Honey comb. | 07 |
