

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2024****Subject Code:3162913****Date:05-12-2024****Subject Name: Advanced Fabric Structure and CAD****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.

- Q.1** (a) State the difference between warp back & weft back cloth **03**
 (b) Construct design & cross-section of corduroy. **04**
 (c) Construct design, draft & peg plan for warp back cloth. **07**
- Q.2** (a) Give design for interchanging double cloth. **03**
 (b) Construct only design for self stitched double cloth.(Face & Back weave is 3/3, 1F:1B, stitching from face to back) **04**
 (c) Give the classification of weft pile fabric. Construct design & cross-section of plain back velveteen.(pile weave 1/3 Twill, G:P = 1:4) **07**
- OR**
- (c) Enlist the steps of constructing jacquard design. Explain how size of the jacquard design is determined. **07**
- Q.3** (a) Construct only design for centre weft stitched double cloth **03**
 (b) Explain with suitable diagram construction of warp pile fabric on Face to Face Principle using single shuttle method. **04**
 (c) Give the classification of double cloth. Construct warp wadded double cloth.(Face & Back weave is 2/2, 1F:1B) **07**
- OR**
- Q.3** (a) Construct design & cross-section for wire warp pile. **03**
 (b) Construct only design of weft back cloth. **04**
 (c) State different methods of tying of Treble cloth. Hence construct only design of Treble cloth. **07**
- Q.4** (a) Briefly explain yarn requirement for Terry weaving. **03**
 (b) Write the characteristics of Net leno. **04**
 (c) Write short note on Damask & Brocade fabric. **07**
- OR**
- Q.4** (a) Construct design for Bird's eye effect.(show weave & colour pattern in warp & weft) **03**
 (b) Give the diagram & features of Russian cord. **04**
 (c) How Terry ornamentation is achieved? Construction Design & cross section of stripe & check pattern in terry. **07**
- Q.5** (a) Construct design for step pattern in simple colour & weave effect.(show weave & colour pattern in warp & weft) **03**
 (b) Construct only design for compound cross over stripe effect **04**
 (c) Explain with neat diagram basic shed formation in leno weaving. **07**
- OR**
- Q.5** (a) Give design & cross-section of 6-pick terry. **03**
 (b) Construct only design for compound check effect **04**
 (c) Write features of one dobby & one Jacquard software **07**
