

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VI EXAMINATION – WINTER 2025

Subject Code:3162913

Date:25-11-2025

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) Draw only design for step pattern. **03**
(b) Give the classification of pile fabric. **04**
(c) Which fabrics are called back cloth? Which weaves are suitable for weft back cloth? Why? Construction only design of weft back cloth. **07**
- Q.2** (a) Draw design of hound's tooth pattern. **03**
(b) Explain Importance of wedding threads in double cloth. **04**
(c) Construct design and cross section of self stitch double cloth. **07**
- OR**
- (c) Discuss principle of jacquard designing. **07**
- Q.3** (a) Draw design and cross section of tubular double cloth. **03**
(b) Draw a neat screen layout of any CAD software for dobby. **04**
(c) Draw design of stripes effect using stripe weave and simple wefting with compound warping **07**
- OR**
- Q.3** (a) State the difference between velvet and velveteen. **03**
(b) Draw design of all over pattern. **04**
(c) Draw design, draft and peg plan of counter leno weave. **07**
- Q.4** (a) Draw design of twill back velveteen. **03**
(b) Write a note on Damask & Brocades. **04**
(c) What is pile height and pile density? Discuss factors affecting pile density. **07**
- OR**
- Q.4** (a) State the features and end use of backed cloth. **03**
(b) Draw design of warp wadded double cloth. **04**
(c) Write a brief note on "Terry Ornamentation". **07**
- Q.5** (a) Draw design and cross section of wire warp pile. **03**
(b) Briefly explain steps of constructing jacquard design. **04**
(c) Draw design and cross section for center weft stitched double cloth. **07**
- OR**
- Q.5** (a) What do you mean by Gauge and leno weaving? **03**
(b) Write a brief note on Tapestry fabrics. **04**
(c) Explain some of the important features of various CAD software packages available for textiles in details. **07**
