

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2024

Subject Code:3172911

Date:04-12-2024

Subject Name: Knitting Technology

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.**

- Q.1** (a) What is knitting? **03**
(b) What is laddering effect in knitted fabric? **04**
(c) Differentiate knitting and weaving in terms of production methods and properties. **07**
- Q.2** (a) Draw a sketch of sinker showing different parts and write its function. **03**
(b) Explain the construction of the needle bed with a suitable sketch. **04**
(c) Show the various parts of a latch needle with a suitable sketch, and discuss its function. **07**
- OR**
- (c) With suitable sketches, show the various cams used in the needle cam track. Also, discuss the function of each cam. **07**
- Q.3** (a) Discuss the properties of the float stitch. **03**
(b) Discuss the formation of tuck stitch. **04**
(c) With suitable sketches explain the sequence of knitting actions for forming a Rib structure. **07**
- OR**
- Q.3** (a) What is laying in? **03**
(b) Draw a sketch of the cams used for tuck and float stitch formation, and also indicate the positions of the cams for tuck and float stitch formation. **04**
(c) Discuss the properties of the Purl and Interlock structure. **07**
- Q.4** (a) What are the advantages and disadvantages of the spring beard needle? **03**
(b) Draw a locknit structure and discuss its properties. **04**
(c) Discuss the properties and structures of any two single guide bar constructions of fabric. **07**
- OR**
- Q.4** (a) Give the name of the flat bed knitting machine elements. **03**
(b) Briefly discuss the formation of the net fabric. **04**
(c) With the suitable sketch explain the guidebar movement in the warp knitting machine. **07**
- Q.5** (a) Write down the applications of the warp knitted fabric. **03**
(b) Give the comparison between warp and weft knitting process. **04**
(c) With suitable sketches explain the loop formation in the Raschel warp knitting machine. **07**
- OR**
- Q.5** (a) Discuss the properties of yarn used for warp knitting. **03**
(b) Discuss the yarn preparation for the warp knitting machine. **04**
(c) Discuss the types of defects and their remedial measures for warp knitted fabrics. **07**
