

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-IV Examination June- 2010****Subject code:142805****Subject Name: Elements of Textile Processes****Date: 21 /06 /2010****Time: 10.30 am – 01.00 pm****Instructions:****Total Marks: 70**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) State the objectives of Spinning. Give the layout of different stages of manufacture for Cotton spinning. **07**
- (b) State the sequence of Weaving Preparatory processes. Also show the optional processes available. **07**
- Q.2** (a) Show the passage of material on a loom and state the functions of Heald, Reed and Shuttle. **07**
- (b) (i) What is the purpose of Ginning and state the types of Gins used in India. **04**
- (ii) Show with the help of a sketch, Roller drafting principle on a Draw frame. **03**
- OR**
- (b) Mention the objectives of following on a Card : **07**
Licker-in, Cylinder, Flats and Doffer.
- Q.3** (a) (i) State the objectives of Ring frame and show the path of yarn on the Ring frame with a neat diagram. **03**
- (ii) 'Comber removes short fibres' - Do you agree with the statement? If yes, which part removes short fibres? **02**
- (iii) Which machines are included in Zone I of Blow room and state their functions. **02**
- (b) What are the objectives of Winding? Show the passage of material through Autoconer winding machine and give the functions of yarn tensioner and yarn clearer. **07**
- OR**
- Q.3** (a) What are the objectives of Doubling, Reeling. Describe any one type of Wet doubling with a neat sketch. State its merits and de-merits. **07**
- (b) State the objectives of Warping. Explain the passage of material through Any one of the following : **07**
- (i) Ordinary beam warping machine (ii) High speed beam warping machine
- (iii) Sectional beam warping machine.
- Q.4** (a) What are the objectives of Sizing? Show the passage of material through Two cylinder sizing machine. **07**
- (b) Explain the Primary and Secondary motions of the loom. **07**
- OR**
- Q.4** (a) State the classification of looms. Give the difference between Shuttle loom and Shuttleless loom. **07**
- (b) Explain the following terms briefly : **07**
Warp, Weft, Weave, Selvage, EPI, PPI, Draft, Design, Peg-plan.
- Q.5** (a) Give the sequence of operation in the Processing department. **07**
- (b) Mention the objectives of the following : **07**
- (i) Desizing (ii) Scouring (iii) Bleaching (iv) Mercerising.
- OR**
- Q.5** (a) State the objectives and mention the methods of any one of the following : **07**
(i) Dyeing (ii) Printing.
- (b) What is Finishing? State the different types of finishes used. **07**
