

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 152905****Date: 23-01-2013****Subject Name: Textile Manufacturing Processes****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.

- Q.1** (a) What is “Spinning”? Give the classification of conventional and nonconventional spinning techniques. **07**
- (b) Define the following terms, each term carry one mark: **07**
- i. Fibre ii. Filament iii. Yarn Count iv. TPI
v. Reed vi. Weft vii. Weaving mechanism.
- Q.2** (a) Mention objects of ring frame and Show the passage of material on it with the help of a neat sketch. **07**
- (b) Compare yarn characteristics of Rotor and Ring spun yarn. **07**
- OR**
- (b) Enlist advantages and disadvantages of ring spun technology with respect to modern spinning system. **07**
- Q.3** (a) Explain how a rotor yarn is produced on a rotor spinning machine. **07**
- (b) Explain the working of Dref-3 spinning system with a neat sketch. **07**
- OR**
- Q.3** (a) Explain the false twisting principle and With neat sketch, discuss Air jet spinning process. **07**
- (b) Compare woven, knitting and nonwoven fabric with respect to their properties and end use application. **07**
- Q.4** (a) With neat sketch, show passage of warp in the plain power loom. **07**
- (b) Discuss limitations of shuttle loom in brief. **07**
- OR**
- Q.4** (a) Explain primary, secondary and auxiliary motions of plain power loom. **07**
- (b) Give classification of weaving machine. **07**
- Q.5** (a) In brief discuss about all type of shuttleless weaving machine. **07**
- (b) How knitting process is different from weaving process? Discuss Weft knitting machine with suitable diagram. **07**
- OR**
- Q.5** (a) Give the classification of nonwoven fabric. Explain any two techniques in detail. **07**
- (b) Classify garment factories according to product type and shows the layout of garment manufacturing process **07**
