

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-Vth Examination December 2010****Subject code: - 152905****Subject Name: - Textile Manufacturing Processes****Date: 21 /12 /2010****Time: 03.00 pm - 05.30 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) State the different techniques of Spinning and compare these systems in terms of the following: **07**
- (i) Twist imparting potential/min
 - (ii) Number of fibres in cross-section
 - (iii) Characteristic yarn properties and differences in strength.

- (b) Give a neat sketch of passage of warp through the loom and discuss in short function of different mechanisms. **07**

- Q.2** (a) Give the sequence of operation in Garment manufacturing process and state the objective of each operation. **07**

- (b) Give classification of weaving machine. Briefly discuss on principles of each loom. **07**

OR

- (b) Give classification of basic mechanisms/motion of plain loom and discuss each in short. **07**

- Q.3** (a) Show the passage of material on a Ring frame machine with the help of a neat sketch and discuss the functions of drafting system, ring and traveller. **07**

- (b) Explain the false twisting principle and describe the operating principle of Murata Jet Spinner with the help of a neat sketch. **07**

OR

- Q.3** (a) Explain the working of Dref-3 spinning system with a neat sketch and give the specifications of the machine. **07**

- (b) Explain how a rotor yarn is produced on a rotor spinning machine. **07**

- Q.4** (a) Discuss Cone over pick mechanism with a neat sketch. **07**

- (b) Discuss Shuttle. Give limitations of shuttle loom. **07**

OR

- Q.4** (a) Discuss the weft insertion system on air jet machine with a neat sketch. Give advantages and disadvantages of air jet loom. **07**

- (b) Give comparison between shuttle and shuttleless loom. **07**

- Q.5** (a) Write a brief note on the following: **07**

- (i) Marker planning
- (ii) Spreading

- (b) What do you mean by 'Non-woven'? Give applications of Non-woven in different sectors. **07**

OR

- Q.5** (a) Answer the following :

- (i) Explain: - Course, Wale, Stitch Density. **03**

- (ii) Define seams and stitches. List out different types of seams and stitches. Draw the block diagram of sewing machine, name the different parts and describe the functions of each part **04**

- (b) Explain the following terminology with a neat sketch: - Warp, Weft, Selvage, Sett, Count, Crimp, Weave. **07**
