

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016**

**Subject Code:2172902****Date:18/11/2016****Subject Name:Modern Weaving Technolgy****Time:10.30 AM to 1.00 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) Classify shuttleless looms. With the help of neat diagrams, explain different types of tensioners used on shuttleless looms in detail. **07**
- (b) With the help of neat diagrams, explain the driving mechanism used on rigid rapier loom to drive the rapier head in detail. **07**
- Q.2** (a) State and explain recent developments taken place in the areas of rapier looms in detail with the help of neat diagrams wherever required. **07**
- (b) Explain torsion bar picking mechanism of projectile loom with the help of neat diagram. Also, explain the methods of changing the picking force. **07**
- OR**
- (b) Compare different types of weft accumulators used on shuttleless looms. With the help of neat diagrams, explain the principle of working of weft accumulators in detail. **07**
- Q.3** (a) With the help of neat diagrams, explain different phases of weft insertion on projectile loom in detail. **07**
- (b) Compare tip transfer with loop transfer type of weft insertion used on rapier loom. With the help of neat diagram, explain different phases of weft insertion of loop transfer type of rapier weft insertion system. **07**
- OR**
- Q.3** (a) With the help of neat diagram, explain the shedding mechanism of projectile loom in detail. Also, explain some of the important settings of the said mechanism. **07**
- (b) Compare multiphase loom with single phase loom. With the help of neat diagram, explain the shedding mechanism of M8300 Multiphase loom in detail. **07**
- Q.4** (a) Discuss the role of pneumatic filling insertion system in air-jet weaving. **10**
- (b) The length measuring device is necessary on air-jet looms. Give reason. **04**
- OR**
- Q.4** (a) Highlight in detail the features of the state-of-the-art sizing machines. **10**
- (b) Discuss in brief about Propak FX system. **04**
- Q.5** (a) Highlight the innovation in the area of warping beam in a warping machine. **10**
- (b) Write a short note on Autotense FX. **04**
- OR**
- Q.5** (a) Explain in detail working of pump in water-jet weaving machine. **10**
- (b) Discuss merits and demerits of water-jet weaving machine. **04**

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