

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (OLD) EXAMINATION – SUMMER 2019****Subject Code: 172902****Date: 18/05/2019****Subject Name: Modern Weaving Technology****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) Give classification of rapier looms. With the help of neat diagram, explain loop transfer type of rapier weft insertion system in detail. **07**
- (b) Discuss pre-requisites of water jet loom. Also discuss advantages and disadvantages of water jet loom. **07**
- Q.2** (a) Classify shuttleless looms. State and explain different types of weft supply packages used on shuttleless looms. **07**
- (b) Explain different phases of gripper circulation on projectile loom with the help of neat diagram. **07**
- OR**
- (b) With a neat sketch explain construction and working of picking mechanism of projectile loom. **07**
- Q.3** (a) With the help of neat diagram, explain the mechanism used for driving flexible rapier head in detail. **07**
- (b) State the importance of selvages and hence explain different types of selvages produced on shuttleless looms in detail. **07**
- OR**
- Q.3** (a) Discuss the requirements of water used in water-jet looms. With the help of neat diagram, explain the weft insertion system of water-jet loom in detail. **07**
- (b) Discuss on propelling forces acting on weft yarn of air jet loom. **07**
- Q.4** (a) Discuss the essential requirements for successful air jet weft insertion. **07**
- (b) Write a note, in detail, on compressor house of Air jet loom with the help of neat diagram. **07**
- OR**
- Q.4** (a) Discuss need for modernization in weaving machine in India and pre-requisites for the shuttleless loom. **07**
- (b) Write in detail on latest features of warping and sizing machines to prepare yarn for shuttleless looms. **07**
- Q.5** (a) State the objects of weft accumulators. With the help of neat diagram, explain the working of any one type of weft accumulator in detail. **07**
- (b) Discuss in short on Propack, Variopack, Ecopack and Auto Tense in relation with Autoconer winding machine. **07**
- OR**
- Q.5** (a) With the help of neat diagrams, wherever required, define flying start, flying end and lead angle. **07**
- (b) With the help of neat diagrams, explain different types of weft yarn tensioners used on shuttleless looms. **07**

\*\*\*\*\*