

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2020****Subject Code:2172902****Date:19/01/2021****Subject Name:Modern Weaving Technology****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any **FOUR** questions out of **EIGHT** questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What are the yarn quality requirements for shuttle-less looms. **03**
(b) Which parameters of air are to be considered for supply to air jet loom? **04**
(c) State the importance of selvages. Explain different types of selvages formed on shuttleless looms with diagram. **07**
- Q.2** (a) Monitoring and control of weaving machines by microprocessor is easier way to operate the loom- Justify you answer. **03**
(b) What are the main features of rapier weaving mechanism? **04**
(c) State the importance of weft accumulators. With the help of neat diagrams, explain the working of weft accumulator. **07**
- Q.3** (a) Differentiate between conventional weaving machines and modern shuttles weaving machines. **03**
(b) Write on any one type of yarn tensioning unit of modern warping machine. **04**
(c) Highlight in detail the features of the state-of-the-art sizing machines. **07**
- Q.4** (a) How air can be measured and write about air quality? **03**
(b) Compare drum type of accumulators and loop type accumulators. **04**
(c) What type of fabric is woven on air jet weaving machine. Explains blowing sequence of relay nozzles and lining control. **07**
- Q.5** (a) The length measuring device is necessary on air-jet looms. Give reason. **03**
(b) What is the equation for drag force acting on weft yarn on air jet loom? Explain briefly. **04**
(c) Describe picking mechanism and nozzle pump design in water jet loom. **07**
- Q.6** (a) Discuss pre-requisites of water jet loom. **03**
(b) Discuss merits and demerits of water-jet weaving machine. **04**
(c) Explain the path of yam of water jet loom in warp and weft direction. **07**
- Q.7** (a) What are the criteria for classifying rapier looms? **03**
(b) What is rapier head? Explain with diagram. **04**
(c) What are the differences between gabler system and dewas system of rapier loom? **07**
- Q.8** (a) How tucked in selvedge is formed on projectile loom? **03**
(b) Which different types of projectiles and projectile guides are available? How many projectiles are required for 360 cm. wide loom? **04**
(c) Explain torsion bar picking mechanism of projectile loom with diagram. **07**
