

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VII (OLD) - EXAMINATION – SUMMER 2018**

**Subject Code:172902**

**Date:08/05/2018**

**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) Write in detail on various possibilities available with shedding mechanisms of projectile loom. **07**
- (b) What are the requirements of weft yarn to be used on shuttleless looms? What is the role of weft accumulator/measuring mechanisms? Calculate the speed of weft yarn with and without accumulator in case of projectile loom running at 330 rpm having 90% efficiency and 330 cm R.S. **07**
- Q.2** (a) With sketch explain timing diagram of relay nozzle based air jet loom. What is called lead angle? **07**
- (b) Discuss in short on braking mechanism on projectile loom. Also write in short on tucked in selvage as formed on projectile loom. **07**
- OR**
- (b) With a neat sketch explain tip transfer and loop transfer mechanism on rapier loom. **07**
- Q.3** (a) Discuss pre-requisites of water jet loom. Also discuss advantages and disadvantages of water jet loom. **07**
- (b) Discuss modern features of Tsudakoma 9100 and Toyota 710 airjet looms. **07**
- OR**
- Q.3** (a) Write a short note on projectiles and feeder grippers. **07**
- (b) Discuss in short on Propack, Variopack, Ecopack and Auto Tense in relation with Autoconer winding machine. **07**
- Q.4** (a) What is prewetting, stretch control mechanism and vertical exit on a modern sizing machine? What are the benefits of the same? With sketch discuss features of any one type of pre wetting arrangement. **07**
- (b) Which Quick Style Change features are available on modern shuttleless looms? Discuss any three in detail. **07**
- OR**
- Q.4** (a) With a neat sketch explain working of heads of negative type rapier loom. **07**
- (b) What are the provisions on modern air jet weaving machines for stable weft insertion? With change in speed how the propelling force is to be adjusted? State its relation with other parameters. **07**
- Q.5** (a) Write short note on multiphase looms. **07**
- (b) Write short note on Triaxial fabric formation. **07**
- OR**
- Q.5** With a neat sketch explain working of picking mechanism of water jet loom. Also write on various adjustment possibilities of the mechanism. **14**

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