

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – I • EXAMINATION – WINTER 2012****Subject code: 712503N****Date: 12-01-2013****Subject Name: Modern Weaving Technology****Time: 02.30 pm – 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)** How would you ascertain quality of warp and weft to be used for shuttleless looms? Give examples wherever necessary. **07**
- (b)** What is the effect of imperfections on the performance of loom shed? What are methodologies for identifying thin places? **07**

- Q.2 (a)** What are the causes of warp and weft breaks on an air jet loom? **07**
- (b)** Discuss various equations with reference to drag force acting on the air jet loom. **07**

OR

- (b)** Explain with a suitable graph force and acceleration of projectile. **07**

- Q.3 (a)** What are the different settings possibilities for width adjustment on rapier looms? Also write in short on any two modern features of rapier loom. **07**
- (b)** What is meant by QSC? How it is useful? How it is exercised on modern looms? **07**

OR

- Q.3 (a)** How nozzles on the air jet loom are set? Explain for main and relay nozzles. **07**
- (b)** Draw the timing diagram of any modern relay nozzle type air jet loom. **07**

- Q.4** Write short note on following. **14**
- i) Cycle of projectiles on projectile loom
- ii) Shedding and beating on multiphase loom

OR

- Q.4** Write on quality of water to be used on water jet loom. With a neat sketch explain working of picking mechanism of modern water jet loom. **14**

- Q.5** With a neat sketch explain working of multi color weft feeder on projectile. **14**

OR

- Q.5** Write short note on following **14**
- i) Design of rapier heads for negative type rapier loom.
- ii) Quality of air for air jet looms.
