



Register Number:.....

B.TECH DEGREE EXAMINATIONS: MAY 2015

(Regulation 2009)

Fifth Semester

TEXTILE TECHNOLOGY

TTX109: Shuttleless Weaving

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

- One of the limitations of a shuttle loom is____
 - Weft package size
 - Warp package size
 - Less cost
 - Less maintenance
- Pirn winding is eliminated in the _____ weaving process.
 - Shuttle loom
 - Pick at will loom
 - Rapier
 - Drop box loom
- Torsion rod in a projectile loom act as a _____
 - Warp guide
 - Weft guide
 - buffer
 - propeller
- In a projectile loom, the beat up process is carried out by using
 - cam
 - links
 - crank
 - lay
- The disadvantage of the rigid rapier system require ____
 - Higher power consumption
 - More labor for maintenance
 - Difficult in troubleshooting
 - Larger floor space
- The noise level of the rapier is reduced due to _____
 - Matched cam drive
 - Linkage drive
 - Shaft drive
 - Differential drive
- _____ loom has run at very high speed.
 - projectile
 - Air jet
 - Rapier
 - Multiphase
- The disadvantage of the profile reed in air jet is____

- b) Illustrate the picking mechanism of a projectile loom and explain the working principle of it.
23. a) Describe the operating principle of a dewas weft insertion system in a rapier loom with neat sketch.
(OR)
b) Illustrate a flexible rapier drive in a rapier loom and give its importance.
24. a) Elaborate the sequence of weft insertion cycle of an air jet loom with line sketch and give its features.
(OR)
b) Describe the factors affecting pneumatic weft propulsion with Duxbury's derivation.
25. a) Illustrate and describe the construction and working of a measuring drum of Investa water jet loom.
(OR)
b) (i) Analyze the techno economics of shuttleless looms. (6)
(ii) Analyze the causes and remedies of fabric defects in shuttles loom. (8)
