

TT 6404 – TECHNOLOGY OF WOVEN FABRIC MANUFACTURE

UNIT 1

1. Explain in detail about the principle and passage of yarn through a powerloom with a neat sketch.
2. Discuss in detail the warp and weft preparation suitable for high speed shuttleless looms.
3. Give an account on the quality requirements of warp yarns for shuttleless looms.
4. With a neat diagram explain about plain power loom driving.
5. Write short notes on the following:
 - i. Principle of weaving with hand loom.
 - ii. Functions of primary, secondary and tertiary motions in a loom.

UNIT 2

1. Explain in principle the difference between negative and positive cam shedding.
2. Explain the working principle of a climax dobby with peg plan.
3. With a neat diagram explain the working of a cross border dobby.
4. Explain the working mechanism of double lift, double cylinder jacquard with diagram.
5. Write short notes on the following:
 - i. Pegging of lags for different hand of dobby.
 - ii. Compare different types of sheds.

UNIT 3

1. Explain the working of a cone underpick mechanism and give its advantages over overpick mechanism.

2. Discuss in details about airjet weaving machines with neat diagram.
3. Explain with neat sketch the rapier driving mechanisms.
4. Elaborate in detail the mechanism of weft insertion and selvage formation in projectile looms.
5. Describe the construction of beat-up mechanism used in shuttleless weaving machine.

UNIT 4

1. Describe the working of electrical warp stop motion with diagram.
2. Explain the working of the following:
 - i. Multiple box motion
 - ii. Short note on types of weft feelers
 - iii. fast reed mechanisms with diagram.
3. Explain the mechanism of a three-try motion with a neat sketch.
4. Explain either pirn or shuttle changing mechanism.
5. Explain with neat sketch working principle of seven wheel take up motions.

UNIT 5

1. Techno economics of shuttleless looms.
2. Explain in detail about Fabric defects and value loss.
3. What are the causes and remedies for controlling the loom stoppages and efficiency in a shed - Explain.
4. Explain loose reed principles and mechanism involved in producing pile fabric with an example.
5. Explain fast reed principles and mechanism involved in producing pile fabric with an example.