

Unit II

Roll No. Total Pages : 04

BT-7/D-14 8783

PROCESS CONTROL IN SPINNING AND
WEAVING

TT-403

Time : Three Hours] [Maximum Marks : 100

Note : Attempt Five questions in all, selecting at least one question from each Unit. All questions carry equal marks.

Unit I

1. (a) What do you mean by 'Cleaning Efficiency' ? Discuss the factors which affect the cleaning efficiency. 10
(b) Define the term yarn realization. What is yarn realization % ? How do you control yarn realization % in case of cotton fibres ? 10
2. (a) What are the factors which affect the nip formation in yarn ? 10
(b) Discuss the process for measuring and control the number of nips in the yarn. 10

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3. (a) What do you mean by long and short term variation in yarn ? How do you measure the long and short term variation in the yarn ? 10
(b) Discuss the various factors which causes the unevenness of yarn ? How do you reduce the unevenness of the yarn spur from a given mixing ? 10

4. (a) Explain the term machine audit and its importance ? How do you carry out energy audit ? 10
(b) Discuss the check points that needs to be recorded at the time of machine audit of the following machines :
(i) Carding
(ii) Ring frame. 10

Unit III

5. (a) Discuss the importance of housekeeping and material handling in yarn spinning. 10
(b) Discuss the important process parameters of sizing that affect the efficiency of a loom. 10

6. (a) Discuss the role of statistics and application of statistical tool for quality control in spinning and weaving. 10
- (b) Discuss the role of the following parts in an automatic winding machine :
- (i) Waxing device
 - (ii) Splicer
 - (iii) Yarn suction device
 - (iv) Tensioner
 - (v) Package lifting device. 10

Unit IV

7. (a) What are the objectives of Maintenance ?
Classify various maintenance activities ?
Discuss the important maintenance activities in automatic winding machine. 10
- (b) What do you mean by Size pick-up ? Discuss the factors that affect size pick up of warp yarn. 10
8. (a) Discuss the possible reason of increase in hard waste in winding, warping and sizing.
How do you control the same ? 10

- (b) Discuss the various factors which affect the efficiency of a loom shed consisting of automatic looms ? How do you decide the number of looms to be allocated to a weaver ? 10