AMTE-5 TECHNOLOGY OF PRE WEAVING PROCESS

UNIT-1 BASICS OF WINDING

1.1 Objects of winding;
1.2 Principles of cheese and cone winding machines; uniform build of yarn package;
1.3 Types of drums – half accelerated and fully accelerated drums; control of balloons;
1.4 Classification of yarn faults and its removal; concepts in yarn clearing – mechanical, optical and electronic clearers; knotters and splicers

UNIT-2 PROCESS CONTROL IN WINDING

2.1 Faults in wound packages, their causes and remedies;
2.2 Winding synthetic and blended yarns; weft winding; winding for colouration;
2.3 Quality of knots and splices; study of modern automatic winders.
2.4 Winding performance; productivity; maintenance; quality control; material handling.

UNIT-3 WARPING

3.1 Objectives of warping,
3.2 Material flow in beam warping and creels used in warping machines;
3.3 Sectional warping machines.

UNIT-4 SIZING

4.1 Objectives of sizing; sizing materials and recipii used for different types of FIBREs;
4.2 Size preparation equipment; sizing machines; sizing filament yarns;
4.3 Concept of single end sizing, combined dyeing and sizing.
4.4 Control concepts in modern sizing; energy conservation in sizing;
4.5 Sizing defects and production calculations.

UNIT-5 PROCESS CONTROL IN WARPING AND SIZING

5.1 Process control in warping (production calculation, machine and labor productivity, control of end breaks, quality and hard waste in warping);
5.2 Control systems used in sizing machine.

UNIT-6 DRAWING-IN

6.1 Need for drawing-in operation;
6.2 Manual and automatic drawing- in,
6.3 Leasing, knotting and pinning machines;
6.4 Selection and care of reeds, healds and drop pins,
6.5 Control of cross ends and extra ends and calculations.

References Books

1 Ormerod A. and Sondhelm W. S., “Weaving: Technology and Operations”, Textile institute, 1995