

Introduction to textiles – I

Unit I

Introduction to the field of Textiles – Major Goals – Classification of Fibres – Natural and chemical – Primary & Secondary Characteristics of textile Fibres – Identification of Textile Fibres – Microscopic, burning, Solubility, Visual.

Unit II

Properties and uses of natural fibers – Cotton, Linen, Jute, Silk, Wool, Manufacturing process, Properties and uses of Man – Made Fibers – Viscose Rayon, Thermoplastic – Acetate Rayon, Nylon6 & Nylon 66, Polyester, Acrylic.

Unit III

Ginning, Opening & Cleaning : Object of Ginning – Types of Gins – Working principle of Saw gin only- Object of Blow room – Hopper bale Beaker Multimixer – Step Cleaner – Scutcher. Objects of carding conventional and High Production Cards Passage of Material through a High Production Card –Card Setting, Speed & Production details.

Unit IV

Preparatory Processes Object of Draw Frame Passage of Material through High Speed LR Do / 2S Draw Frame. Polar Drafting System – brief Study about Latest Draw Frames Comber Preparatory – Noil theory, Silver Lap Ribbon Lap Machines. Working of High Speed LR E 7/4 Comber – Timing & Setting of combers :

Fly Frame – Tasks of Fly Frame – Passage of Material Through a Speed Frame – Principle of Material of Twisting and winding Object & Working of Builder Motion – Object of Flyer.

Unit V

Spinning, Doubling & Fancy Yarns : Tasks of Ring Frame – Construction and working of Ring Frame, Principles of Twisting winding and Winding – Study of Builder Motion – Yarn Faults – Causes and remedies, Rotor Spinning, Working principles passage of Material – Comparison of OE yarn with ring Spun Yarn – Brief Study about Friction spinning and Air jet Spinning Doubling – Dry and Wet Doubling passage of Material in Ring Doublers – Two for one Twister. Fancy yarns – Production and end uses of different fancy yarns – Manufacturing process for Sewing Threads.