

PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Textile Engineering

Faculty Name: - Mr. Ghanshyam Pande Subject Name: -Yarn Manufacturing-II

Year/Semester: - 2nd/4th

Subject Code: - PCC-TEX-204A

Unit No.	Topic of the Lecture	Hours	Total Hours
Unit I	Combing-Objective, Different types of comber.	1	10
	Different combing preparatory process for lap preparation – Sliver lap, Ribbon lap and Unilap machine.	1	
	Combing cycle of rectilinear cotton comber.	1	
	Timing diagram for combing operation.	1	
	Configuration of fibre feed and its effect on quality of product.	2	
	Noil percentage and fractionation efficiency of comber	1	
	Influence of type of feed on noil extraction and cleanliness of sliver.	1	
	Calculation pertaining to draft, production and noil percentage	1	
	Revision	1	
Unit II	Speed frame - Objective, Working principle of speed frame	1	11
	Construction and working of important parts	1	
	Mechanism of drafting, twisting and winding	1	
	Basic principle of designing of cone drum	1	
	Differential motions & Building motions	1	
	Common defects in roving packages- their causes and remedies.	1	
	Processing of man-made fibres on speed frame	1	
	Recent development in speed frame	2	
	Calculations pertaining to draft, TPI and production, twist multiplier and roving twist.	2	
Revision	1		
Unit III	Ring frame- Objective, Principle and mechanism involved in drafting, twisting and winding	1	12
	Rising and falling lappets, balloon control rings.	1	
	Design and types of spindle, ring and traveler	1	
	Concept of twist multiplier and yarn contraction due to twisting	1	
	Types of builds, Mechanism of package formation.	1	
	Concept of twist multiplier and yarn contraction due to twisting, Production calculation.	1	
	Causes and remedies to control end breaks.	1	
	Recent developments in ring frame.	1	
	Concept of average mill count and 20's conversion.	1	
	Calculation of TPI and production of ring frame.	1	
	Revision	1	
Unit IV	Objective and terminology of Doubling.	1	9
	S & Z Twist, Double yarn, Cable Yarn	1	
	Requirement of feed package for yarn plying.	1	
	Autoconer, Yarn faults	1	
	Process parameters of doubling.	1	
	Different types of wet doubling	1	
	Two for one twister (TFO)- objective & working Principle.	1	
	Calculation of TPI and production of doubling frame.	1	
	Revision	1	