PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Textile Engineering

Faculty Name: Kalyan Roy **Subject Name: Knitting Technology**

Year/Semester: 3rd/ 6th **Subject Code: PCC-TEX-306A**

Unit No.	Topic of the Lecture	Hours	Total Hours
Unit I	Introduction to Knitting	1	8
	Difference between woven and knitted products and process	1	
	Classification of Knitting Machines	1	
	Terms and Definitions used in knitting	2	
	Elements of knitting: needles, sinker and cam.	3	
Unit II	Basic weft knitted structure	1	18
	Structure and properties of Plain, its symbolic representation	2	
	Structure and properties of Rib and its symbolic representation	2	
	Structure and properties of Purl	1	
	Structure and properties of Interlock and its symbolic	2	
	Application of multi-track cam system in circular knitting	1	
	Concept of patterning and pattern area selection	2	
	Pattern drum selection device- mechanism and working	2	
	Pattern wheel selection device- mechanism, working and selection	2	
	Electronic selection device – its function and advantages	1	
	Tuck & Float loops – their structures and usefulness	2	
Unit III	Production calculation in terms of length and weight of fabric	1	8
	Concept of Tightness factor and Areal density & calculation	1	
	Knitted fabric relaxation and shrinkage, Values of Kc, Kw &	1	
	Concept of loop length and its influence in knit properties	1	
	Positive Feed Device and its importance in quality of knitted fabrics	2	
	Yarn quality used in knitting	2	
Unit IV	Comparison between warp knits, weft knits and woven	1	10
	Overlap, under lap, closed lap, open lap	1	
	Knitting cycle in Tricot Knitting machine	1	
	Knitting cycle in Raschel knitting machine	2	
	Five Basic overlap, under lap variations	1	
	Patterning in warp knitting	1	
	Various warp knitted structures like, loop raised, satin, lock	3	
	Tricot, Reverse locknit, Shark skin, Queenscord and Atlas.		