LESSON PLAN		
Sem./ Branch: 5th Sem./ Text. Tech.		**Duration:15 weeks**
Subject: Spinning Technology-III		**Name of Faculty:** Puneet garg
Week	**Theory Topics (3 Periods/ Week)**	**Practical (5 Periods/ Week)**
1st	Introduction and objectives of a Ring Frame. nomenclature of various parts of a Ring Frame, passage of material through it. Drafting, function of the drafting system. study of top arm drafting system, apron drafting, advantages of apron drafting..	Practice of passage of material through Ring Frame. Practice of drafting roller settings. Mill visit be arranged to see top arm weighing system
2nd	Introduction to rings, sizes and different types of rings, ring travellers, its functions. types of ring travellers, their sizes. Numbering of ring travelers. Insertion on of twist into the yarn, S and Z twists. effect of twist on yarn, selection of TM for various counts, ring and travellers speeds.	Practice on ring and ring traveller, spindle gauge/setting. Selection of ring travellers for different Counts
3rd	Building motion mechanism, insertion of coil on bobbin. Yarn ballooning, yarn ballooning control rings, separators, lappets. Reasons for end breaks and their remedies on Ring Frame.	Practice of inserting S and Z twist in the yarn and draw sketches.
4th	Principle of Auto doffing at Ring Frame. Principle of variable pulley speed at Ring Frame. Workload distribution at Ring Frame	Practice of drawing and setting of building motion of ring frame.
5th	Gearing diagram of Ring Frame. Calculation of spindle speed, front roll speed. production per shift per machine. Calculation of total draft, Calculation of break draft and individual zone draft.	Calculation of total draft, break draft and individual zone draft.
6th	**1st Sessional test**	
7th	Calculation of twist per inch. Calculation of twist multiplier. Calculation of production constant, draft constant. break draft constant and twist constant. Calculation of traveler speed. Calculation of yarn content on bobbin.	Calculation of TPI and Twist Multiplier ™. Calculation of production constant, draft constant, break draft constant and twist constant.
8th	Objects of Ring Doubling, Doubling, and its effects. Objects of dry and wet systems of doubling	Calculation of traveler speed. Calculation of yarn content on bobbin
9th	Twist insertion in ply yarn, types and amount of twist. Factors effecting the	Practice of passage of yarn through Ring

	multiplier for double yarn.	Doubling Machine. Different parts and their working.
10th	Yarn defects and their causes and remedial measures in doubling machine (Expert Lecture).	Practice to find the direction of twist in ply yarn.
11th	**2nd Sessional test**	
12th	Improvement in quality and productivity performance of a doubling machine (Expert Lecture. Working principle of TFO	Demonstration of working of TFO during mill visit / training
13th	. Gearing diagram showing various drives of a Ring Doubling Machine. Calculation of production per machine,production constant,spindle speed, deleivery roll speed,twist/inch,twist constant,	Practice of drawing gearing diagram on Ring Doubling Machine
14th	Calculation of different types of yarn's diameter Calculation of balancing of machines in different sections for a particular spin plan requirement Sequence of machinery used in the production of Woolen and worsted system.	Calculation of production per machine and production constant.Calculation of spindle speed, delivery roll speed
15th	**3rd Sessional test**	
16th	Difference between Woolen & Worsted yarn. Various maintenance schedules adopted in a frame. Process control Parameter with reference to productivity and yarn quality.	Calculation of twist per inch/twist Multiplier and twist constant of the Machine