

LESSON PLAN

DEPARTMENT OF TEXTILE ENGG, GOVT. POLYTECHNIC, BHADRAK

SUBJECT: Yarn Manufacture - III Periods: 3 per week SEMESTER: 5th

NAME OF FACULTY: S.S UPADHYAY ACADEMIC YEAR: 2022-2023

Semester From date: 15.9.2022 To Date: 22.12.2022 No. of weeks: 15

Week	Class Day	Theory / Practical Topics
1st	1st	Purpose and principles of Ring Spinning Machine, & passage of Material and function of various parts of the machine.
	2nd	Purpose and principles of Ring Spinning Machine, & passage of Material and function of various parts of the machine.
	3rd	Modern drafting systems on Ring Spinning machine, Top roller weighting system, top covering & mounting, roller setting and spinning triangle, cots & aprons, Rings and Travellers, Function of rings & travellers, types of rings, ring size and flange number, running in of rings, types of traveller, traveller number, selection of traveller.
2nd	1st	Modern drafting systems on Ring Spinning machine, Top roller weighting system, top covering & mounting, roller setting and spinning triangle, cots & aprons, Rings and Travellers, Function of rings & travellers, types of rings, ring size and flange number, running in of rings, types of traveller, traveller number, selection of traveller.
	2nd	Modern drafting systems on Ring Spinning machine, Top roller weighting system, top covering & mounting, roller setting and spinning triangle, cots & aprons, Rings and Travellers, Function of rings & travellers, types of rings, ring size and flange number, running in of rings, types of traveller, traveller number, selection of traveller.
	3rd	Twisting & Winding,
3rd	1st	Build of bobbin, building motion & drives of Ring spinning machine.
	2nd	Balloon control ring, State causes & end breakages, yarn defects & remedies.
	3rd	Ring spinning needs and possibilities.
4th	1st	End break Aspirators ,Monitoring ,Piecing devices ,Ring data, Automatic doffing, Describe special attachment such as Automatic doffing and pneumatic waste extraction.
	2nd	End break Aspirators ,Monitoring ,Piecing devices ,Ring data, Automatic doffing, Describe special attachment such as Automatic doffing and pneumatic waste extraction.
	3rd	Gearing Diagram, Calculation of speed , production and efficiency in Ring spinning machine, State lubrication and maintenance of High speed Ring spinning machine.
5th	1st	Gearing Diagram, Calculation of speed , production and efficiency in Ring spinning machine, State lubrication and maintenance of High speed Ring spinning machine.
	2nd	Brief idea on Compact spinning.

	3rd	Class for revision.
6th	1st	Principles and objects of doubling.
	2nd	wet and dry doubling, different methods of threading, detailed study of creels, building motions, rings, travellers and spindles on doublers.
	3rd	Concept of balanced twist in doubled yarn, direction of twist in doubled yarn and its relation to single yarn.
7th	1st	TFO- Principle, technique , Fancy doublers, different systems of fancy yarn production.
	2nd	Class for revision.
	3rd	Modern Spinning System.
8th	1st	Modern Spinning System.
	2nd	Modern Spinning System.
	3rd	Rotor spinning.
9th	1st	Rotor spinning.
	2nd	Rotor spinning.
	3rd	Friction spinning
10th	1st	Friction spinning
	2nd	Friction spinning
	3rd	Air-jet Spinning
11th	1st	Air-jet Spinning
	2nd	Air-jet Spinning
	3rd	Twist-less Spinning, Self twisted spinning & Siro Spinning.
12th	1st	Twist-less Spinning, Self twisted spinning & Siro Spinning.
	2nd	Class for revision.
	3rd	Definition of Raw wool, Rag pulling and garneting (Shoddy).
13th	1st	Wool blends for woollen yarns and oiling of wool carding mechanism and Settings.
	2nd	Woollen spinning concept of carpet yarn manufacture.
	3rd	Outline introductory concept of Bradford and continental system.
14th	1st	Top preparation –worsted carding ,Semi worsted card (concept only).
	2nd	Intermediate Gill box combing, Top finishing of wool.
	3rd	Tow of top conversion of filament for multi-length staple fibres for blending with wool Top
15th	1st	Blending technique, type of product blend, Explain Concept of process sequence, Worsted drawing roving frame, rubbing finisher & ring spinning mechanism.
	2nd	Concepts of yarn twisting & yarn quality.
	3rd	Class for revision.