Certificate Course in Supervisory skilling programme on Jute Weaving Preparatory and Finishing (S-3)

Duration: 560 hours Domain Skill: 500 hours

Section	Beaming to Sack sewing- Finishing	Contact Hours
Beaming	• Introduction of pre-beaming machine and their working procedures, different parts and their functions. Difference between pre-beam & normal beam. • Beaming- definition, purpose, importance, and quality of size mixture. Introduction of sizing/beaming machine and their working procedures, different parts and their functions. • Creel arrangement • Optimum use of energy & temperature in cylinders • Size paste – its importance, application, drying of size paste. • Identification of faults and rectification • Yarn waste and its control • Do's and Don'ts of Beaming operation	**Theory** 30 **Practical** 60
Weaving	**Fundamentals of Jute Weaving -** Introduction, Weaving, Weave, Loom, Classification of Jute Loom **Loom Motions** - Classification of Loom Motion, Primary Motion, Secondary Motion, Auxiliary Motion (Shuttle & Shuttleless Looms) **Timings of Loom Motions -** Necessity for Proper Timings of Loom Motions, Method of Indicating Timings of Loom Motions, Timings of Shedding and Picking Motions, Shedding Motion, Picking Motion **Loom tuning** **Cloth Defects -** Details of Cloth Defects Reference **Shuttleless Looms for Jute Weaving** ○ Introduction, Weaving Productivity ○ Problems to Increase the Productivity of the Shuttle Loom by Increasing Its Speed ○ Shuttleless Looms ○ Shuttleless Looms for Jute Weaving ○ Productivity and Weft Velocity of Shuttleless Looms Used in Jute Weaving	**Theory** 50 **Practical** 150

Section	Beaming to Sack sewing- Finishing	Contact Hours
	○ Cloth Selvedge ○ High Weaving Productivity with Shuttleless Looms • Identification of faults and rectification • Do's and Don'ts of Weaving operation • Yarn waste & cloth waste and its control • Important calculations • Machine Balancing	
Finishing	• Introduction and purpose of finishing. Steps of operations in jute finishing. • Purpose of damping. Different types of damping machines and their working principle. • Purpose of calendering process. Different types of Calendering machines and their working principle • Purpose of Lapping. Working principle of Lapping machine • Purpose of Cutting machine. Different types of cutting machine and their working principle. • Different types of fault and its remedies on Damping, Calendering, Lapping and Cutting machine. • Purpose of different types of sack sewing machine. Working mechanism of hemming, herackle sewing machine. Safety stitch. Types of jute bags produced in jute mills and their dimension. Types of twines used for stitching for different types of stitch. Different types of seams, depth/bite of stitches, nos. of stitches per dm, different faults in stitching of jute bags and their remedies. • Do's and Don'ts of sack sewing operation • Yarn waste & cloth waste and its control • Important calculations • Machine Balancing	**Theory** 50 **Practical** 110
Testing and Quality Control	• Concept of Quality and Statistical Quality Control • Role of Sampling for testing	

Section	Beaming to Sack sewing- Finishing	Contact Hours
	• Testing standard and SOP of test method • Fabric Testing: Strip strength (warp and weft way), ends/ dm, picks / dm, gsm, cover factor calculation • Inspection: ➢ Procedure of inspection. ➢ Sampling in the inspection. ➢ Parameters of the products considered for inspection. ➢ Specifications of the common products. ➢ Paper job related for inspection. ➢ Papers related to pass/fail a consignment.	**Theory** 20 **Practical** 30
Basic Computer Skill	• Basic concept of computer and its necessary in jute mill • Introduction of MS Office o MS Word o MS Excel o MS PowerPoint • Internet and E-mail.	**Theory** 6 **Practical** 24
Soft Skill	• Basic concept about the man machine ratio and hands complements • Fire and industrial safety management	**Theory** 5 **Practical** 5
Interactive Session / Mill Practice		20
Total		**560**