

**II Semester (CC -III) - Yarn Manufacture – I**

**Major Division**

1. Blow room
2. Carding
3. Drawing
4. Combing
5. Speed frame

**Unit - I**

**Blow room**

Ginning – Objects and Types of gins

Blending – Objects

Comparison between mixing and blending.

Blow room - Objectives of blow room process – principles of opening and cleaning machines- Description and working of openers and beaters.

Study of scutcher Lap forming device –salient feature of modern blow room process Calculation relating to speed., production and efficiency of machines

Brief Study of chute feed system.

**Unit - II**

**Carding**

Objects and principles of carding. Passage of material through card - Study of different parts of the carding machine and their functions. Defects in card sliver causes and remedies.

Salient features of modern high production cards. Brief study of Auto leveler - Open and closed loop auto levelers.

Calculations related to speed, draft production and efficiency in cards.

**Unit – III**

**Draw frame**

Objects of drawing – Principles of doubling and drafting at draw frame. Functions of different sections of draw frame. Draft and its distribution. Roller settings.

Drafting systems - Salient features of modern draw frame.

Calculations related to speed., draft., hank production and efficiency in draw frame.

Method of Blending at draw frame stage.

## **Unit – IV**

### **Combing**

Principles and objects of preparatory machines to combing – different sequence of process in the preparation to the combers– Comber lap preparatory machines, -Ribbon Lap machine and super lap former. Objects of combing –Degree of combing. Characteristics of combed yarn. Salient features of modern comber.

## **Unit – V**

### **Speed Frame**

Principles and objects of speed frame. Functions of different parts of the speed frames Drafting and twisting and their relationship to the material being processed. Roller settings. Principles of winding. Salient features of Modern speed frame. Calculation related to production and efficiency.

### **Reference Books:**

1. Opening and cleaning – W.A.Hunter
2. Cotton spinning – W.S. Taggart
3. Cotton Opening & Picking – G.R.Merrill
4. Manual of cotton spinning textile institute volume 1,11,111- Butters Wroth
5. Spun yarn technology – volume 1 & 11 A.V. Mani
6. Klein Series.
7. Textile fibres by V.A Shenai, 2<sup>nd</sup> Revised edition, 1997 Vol. I in the series, Technology of Textile Processing Seavk publications , Bombay.
8. Manmade fibres by P.W.Moncrieff, 6<sup>th</sup> edition 1975 Newnes- Butterworths London
9. Textile Science by E.P.C Gohle and L.D Vilensty, 1<sup>st</sup> Indian edition 1987,CBS Publishers and Distributors Delhi, India.
10. Fibre Science and Technology by S.P.Mishra