

V Semester (CC -VIII)

Fabric Manufacture – II

Major Divisions:

1. Dobby Mechanism
2. Jacquard Mechanism
3. Multiple Box and Terry Motions
4. Automatic Loom
5. Cloth Structure

Unit – I

Dobby Mechanism

Objects – scope –classification – Brief study of Single lift doobby and its characteristics - Double lift doobby and its characteristics. Cross border Dobby –working –Cam doobby –working –Study of card punching machine. Study of Electronic doobby.

Unit – II

Jacquard Mechanism

Objects – principle –characteristics –types of Jacquard. Figuring capacity of Jacquard –single lift single cylinder jacquard –working.– uses. Study of Double lift double cylinder jacquard.–Piano card cutting Machine – card cutting and lacing. Uses of Cross border jacquard uses. Brief study of electronic jacquards.

Unit – III

Multiple Box and Terry Motions

Multiple box motions – objects - classification. Eccle’s Drop box motion. Lifting plan of Eccle’s Drop box motion – card saving devices. Weft-mixing motion. Brief study of pick – at will motion. Defects of drop boxes and remedies.

Terry motion – object –principles of terry motions. Study of any one loose reed terry motion

Unit – IV

Automatic loom

Introduction - characteristic features of Automatic loom – Advantages of Automatic looms over non – automatic looms – Weft feelers – Types. Study of Cop changing mechanism.

Positive warp let-off motion – objects – Types –uses-Roper let-off motion

Warp stop motion –object – Types –principles of working.
Study of Cop changing and shuttle changing looms.

Unit –V

Cloth structure

Design, draft and peg plan for the following weaves, Quality particulars and loom required and end uses, Bedford cords and piques – Extra warp and weft figuring – Terry pile structures – Velvet, Corduroys. Double and Treble cloth –Gauge and Leno structures – Development of motif on point paper for jacquard.

Reference Books:

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| 1) | The Mechanism of Weaving | - | Thomas W. Fox |
| 2) | Principles of Weaving | - | Marks & Robinson (ATC) |
| 3) | Weaving Mechanism Vol – I | - | N.N.Banerjee |
| 4) | Elementary Design and Colour | - | Z.Grosicki |
| 5) | Weaving Calculations | - | R.Sengupta |
| 6) | Modern preparation and Weaving | - | A.Ormerod |
| 7) | Mechanism of Weaving Vol-I & II | - | Prof. J.C.Chakravarthy |
| 8) | Fabric Forming | - | B.Hasmukrai |