(iv)TRADE : TEXTILE WEAVING

PAPER-I **TEXTILE FIBER SCIENCE**

THEORY

Time : 2 hrs **Theory : 30 Marks**

CCE : 10 Marks

Practical : 50 Marks

Total : 90Marks

- Fibres - Introduction to Textiles Fibres, Classification and Description of Various Textile Fibres - Natural, Manmade and Synthetic.
- Identification of Textile Fibers by Microscopic, Chemical and Burning Test.
- Object of Ginning, its Importance and Need.
- Yarn - Types of Yarns - Simple, Novelty and Textured Yarns.
- Weaves - Introduction to Different Types of Weaves - Plain, Twill, Satin and Sateen.
- Different Varieties of Cotton and Wool, Grading of Cotton and Wool.
- Process and Flow Chart of Cotton and Woolen Finished Fibre.
- Finishes - Purpose, Types & Understanding the Effect of Some Common Finishes Used In Textile Industry Like Mercerisation, Sanforisation, Sizing, Crease Resistance, Calendering, Tentering and Embossing.
- Study of Various Kinds of Stains on Textile and Their Removal.
- Introduction to Different Types of Yarn Packages Like Hank, Bobbin, Cheese and Cone.

TEXTILE FIBER SCIENCE

Time: 3 hrs **PRACTICAL** **Marks : 50**

- Identification of various textiles fibres by burning and microscopic method.
- Identification of various textiles fibres by chemical solubility method.
- Methods of washing, drying and ironing of various fabrics.
- Colour fastness test to heat, sunlight, gas fumes, perspiration, humidity, washing, crocking and Ironing on coloured natural fabrics.
- Identification of various types of vegetable, animal, chemical and mineral stains and their removal.
- Practice of winding - hank, bobbin and cone winding.
- Draw flow chart of cotton Fibre to Fabric processing.
- Draw flow chart of Wool fibre to fabric processing.
- Draw flow chart of polyester fiber to Fabric processing.
- 3D presentation of cotton fibre to fabric.

PAPER-II **YARN PREPARATION AND FABRIC STRUCTURE**

THEORY

Time : 2 hrs **Theory : 30 Marks**

CCE : 10 Marks

Practical : 50 Marks

Total : 90Marks

- Spinning & its Types - A) Mechanical - Spinning of Cotton, Wool and Worsted,

B) Chemical - Melt, Dry & Wet Spinning.

- Terminology Related to Fabrication - Fabric, Warp, Weft, Weave, Repeat Pattern, Design, Draft Plan, Peg Plan, Texture Motif and Picks.
- Definition of Selvedge, Types of Selvedge and its Importance in Cloths, Importance of Monogram in Selvedge.
- Introduction to Yarn Preparation, Winding, Warping - Definition & Different Methods of Warping, Warping Calculations - No. of ends/ Inch, No. of Picks/ Inch, No. of Bobbins, No. of Sections, Width of Sections, Length of Warp on Bobbins, Total Length of Yarn, Weight of Yarn, Width of Cloth Including Selvedge, Sizing Beaming, Looming, Yarn Count, Reed Count and Count of Folded Yarn.
- Aims, Objective and Scope of Weaving.
- Use and Importance of Graph Paper for Different types of Weaves.
- Classification of Weaves - Elementary, Compound and Complex.
- Introduction to the Following Weaves Along With Their Draft Plan and Peg Plan : Plain Weave - Rib and Basket, Twill Weave - Regular, Pointed Honey Comb, Satin, Sateen, Pile Weave - Cut and Uncut.
- Introduction of Different Types of Fabrics Such as Suiting, Shirting, Dress Material, Blankets, Bed Sheet, Mulmul, Poplin, Cheese Cloths, Jean, Voil.
- Introduction to Computer Aided Weaving Design.

YARN PREPARATION AND FABRIC STRUCTURE

Time: 3 hrs **PRACTICAL** **Marks : 50**

- Warp and Weft winding, Pirn winding, Bobbin winding and cone winding.
- Plain Weave - Preparation of warp, drafting, denting and drawing.
- Basket Weave - Preparation of warp, drafting, denting and drawing.
- Regular twill Weave - Preparation of warp, drafting, denting and drawing.
- Herringbone Twill - Preparation of warp, drafting, denting and drawing.
- Pile Weave - Preparation of warp, drafting, denting and drawing.
- Simple exercise on different types of knotting.
- Introduction in Computer Aided Weaving.
- Make a scrap file of different pattern of selvedges.
- Prepare sample of plain and matte weave.

PAPER-III **HANDLOOM MECHANICS AND OPERATIONS**

THEORY

Time : 2 hrs **Theory : 30 Marks**

CCE : 10 Marks

Practical : 50 Marks

Total : 90Marks

- History of Weaving & its Importance in TextileCraft.
- Types and Parts of Warping Machine-CreelStand, Back Reed, Warp Reed, Guide Roller, Warping Drum, Warping Beam and Drawing Hooks and theirFunctioning.
- Types of Reed and Heald Wires.
- Types and Parts of Handlooms and Their Functioning, Harnessing of Handloom.
- Process of Handloom Fitting.
- Motions of the Handloom: Primary Motions - Shedding, Picking & Beating up, Secondary Motions - Taking up & Letting off.
- Checking of Handloom Before Operation and General Precautions.
- Different Methods of Drafting & Denting In Preparatory Process
- Types and Parts of Shuttle.
- Working of Dobby for Handloom.
- Working of Jacquard for Handloom.

HANDLOOM MECHANICS AND OPERATIONS

Time: 3 hrs **PRACTICAL** **Marks : 50**

- Winding of bobbins.
- Arrangement of bobbins in creel.
- Passing of threads through the back reed.
- Pirn winding and inserting.
- Fitting of handloom and maintenance.
- Harnessing of Handloom.
- Weaving of cloth - plain weave, Basket weave, twill weave and terry pile weave.
- Visit a handloom industry and make a report on working of different parts/ sections of industry.

(v)TRADE : KNITTING

PAPER-I **TEXTILE FIBRE AND TESTING**

THEORY

Time : 2 hrs

Theory : 30 Marks
CCE : 10 Marks
Practical : 50 Marks
Total : 90Marks

Fibres

Introduction to Textiles Fibres, Classification and Description of Various Textile Fibres (Natural, Manmade and Synthetic), Physical and Chemical Properties of textile fibre, Identification of fibre using Physical and Chemical Methods.

Yarn

Types of Yarns, properties of Yarn for knitted Fabric Manufacturing.

Knitting-
Classification of Knitting, Product and its uses.

Dyes
Introduction, Classification – Natural and Synthetics Dyes, Direct, Acidic, Basic, Sulphur,