

- Estimation of the fabric - simple cotton and silk/ synthetic, accessories on the basis of body measurements of children of different age groups.
- Fitting, finishing, ironing and folding of the above children garments.
- Make a Party wear frock for kids using any two design features - tucks, pleats, gathers, shirring, couching, decorative embroidery stitches etc.

### (iii) **TRADE : TEXTILE DESIGNING**

#### **PAPER-I**

#### **TEXTILE TESTING 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), Physical and Chemical Properties for Identification, Use and Care.
- Yarn Numbering System – direct and indirect numbering.
- Yarn: Types of Yarns – Single Ply, Double Ply, Novelty, Textured Yarns.
- Dyes: Introduction to Dyeing, Classification of Dyes as per their Application - Natural, Direct, Acidic, Basic, Sulphur, Indigo-sol, Soluble Vat, Reactive, Disperse, Naphthol or Azoic, Chrome, Oxidation Dyes and Pigment Colours.
- Finishes - Purpose, Types and Effect of Some Common Finishes used in Textile Industry Like, Sizing, Sinzeing Crease Resistance, Tentoring and Embossing Water Proof Finish, Water Resist.
- Introduction to Finishing Process-Mercerisation, Sanforisation, Calendaring, Decatizing
- Introduction to Different Fastness Tests (Light, Washing, Crocking).
- Introduction to Different Illuminants used for Shade Matching - UV, U-30, TL, D-65, Incandescent A.
- Introduction to Basic Flow Chart of Cotton from Fibre to Fabric.
- Study of Various Kinds of Stains on Textile and their Removal.

#### **TEXTILE TESTING SCIENCE**

**Time : 3 hrs**

##### **PRACTICAL**

**Marks : 50**

- Identification of various textiles fibres by physical burning.
- Identification of various textiles fibres by microscope.
- Identification of various textiles fibres by chemical solubility methods.
- Methods of washing, bleaching, starching, drying and ironing of various fabrics.
- Colour fastness test for showing effect of 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.
- Colour fastness test for showing effect of rubbing and chemicals on coloured natural fabric.

**PAPER-II****TEXTILE DESIGNING AND PRINTING - I****THEORY****Time : 2 Hrs****Theory : 30 Marks****CCE : 10 Marks****Practical : 50 Marks****Total : 90Marks**

- Origin, Historical Background and Characteristics of Traditional Indian Designs with Special References to Punjab.
- Sources of Inspirational Designs: Nature, Abstract, Geometrical and Mythology.
- Design: Definition, Classification (Structural and Applied), Principles and Elements.
- Colours: Light and Pigment theory of Colours, Colour Wheel, Primary, Secondary and Tertiary Colours, Colour Schemes and Qualities of Colour.
- Introduction to Textile Printing Materials used for Printing, Its Importance.
- Various Methods of Printing: Introduction to various methods of printing, Block Printing, Roller Printing, Screen Printing, Spray Printing/Stencil Printing and Transfer Printing.
- Elementary Study of Thickening Agents and Auxiliaries.
- Block Printing of Cotton Fabric with Aniline Black.
- Direct Method of Printing on Silk with Basic Dye.
- Introduction to Sublimation Printing.
- Pre treatments of Printed Fabrics.
- After treatment of Printed Fabrics
- Introduction to Printing paste and various ingredients used in it.

**TEXTILE DESIGNING AND PRINTING - I**  
**PRACTICAL**

**Time: 3 hrs**

**Marks : 50**

- Practice of mixing colours showing colour on colour wheel with varied values and hues showing various colour combinations.
- Preparing file with different designs suitable for textiles using soft pencil, crayon, pencil colours, sketch pens, coloured ink or watercolour.
- Preparing paper stencils for printing.
- Making of stencil design for saree border, handkerchief and pillow cover.
- Practice of painting with fabric colours on textiles.
- Practice of printing sulphur dye on cotton cloth with hand block.
- Making preparation of grey scale.
- Visit to museums, art galleries, craft melas and report writing of the craft appraisal.

**PAPER-III**

**TEXTILE DYEING - I**

**THEORY**

**Time : 2 Hrs**

**Theory : 30 Marks**

**CCE : 10 Marks**

**Practical : 50 Marks**

**Total : 90 Marks**

- Brief Study of pH Value.
- Precautions to be Observed While Scouring, Bleaching and Dyeing.
- Scouring of Cotton and Wool, Polyester Fibres and Fabric.
- Bleaching of Cotton and Wool, Polyester Fibres and Fabric.
- Direct Dyes: Names, Identifications, Properties and Applications of on Cotton and after Treatment with Synthetic Fixing Agents.
- Properties, Names and Applications of Reactive Dyes, Vat Dyes.
- Estimation of Weight of Dyes for Laboratory Purpose.
- Determination of Chemical used for Dyeing Purpose in Laboratory.
- Dyeing of Wool Silk, Nylon with Acid Dyes and Metal Complex Dyes on Wool.
- A Brief Study of Long Bath, Short Bath, Neutral Bath, Standing Bath, Stripping, Leveling, Micro-Controller and

Sample Pot for Dyeing Machine.

- Applications of Reactive, Vat, Dyes on Cotton and Viscose.
- Application of Sulphur Dyes on Cotton.
- Application of Direct Dyes on Viscose.
- Dyeing of Nylon with Direct Dyes.

### **TEXTILE DYEING - I**

**Time: 3 hrs**

#### **PRACTICAL**

**Marks : 50**

- Practice of scouring and bleaching of cotton and wool.
- Practice of dyeing of cotton and jute with direct dye.
- Effect of time, temperature, water ratio and chemicals in dyeing.
- Practice of dyeing of cotton with reactive vat dyes.
- Practice of dyeing of woolen yarn/fabric with acid dyes, metal complex (Nealon) dyes.
- Practice of dyeing of cotton with ramazole dyes.
- Practice of dyeing of cotton with sulphur dyes.
- Practice of dyeing of cotton with direct dyes.
- Make an article using any one class of dye.