

**(iii)TRADE :  
TEXTILE  
DESIGNING 12<sup>th</sup>  
VOCATIONAL  
TEXTILE TESTING AND FINISHING  
THEORY**

**PAPER-I**

**Time : 2 Hrs**

**Theory : 30 Marks**

**InA : 10 Marks**

**Practical : 50 Marks**

**Total : 90Marks**

- Water: Types and Uses in Textile Industry.
- Hard Water: Types of Hardness, Methods of Removing of Hardness of Water.
- Dis-Advantages of Hard Water on Boiler Stage, Pre Treatment, Dyeing/Printing, after Treatment (Printing, Finishing) Stages.
- Study of Various Kinds of Advanced Finishing Processes used in Textiles - Shearing, Raising, Decatizing, Sanforization. Mercerisation, Starching, Weightening Finish, Crease, Resistance, Calendaring, Anti-Static their Importance and Uses.
- Study of Various Kinds of Finishing Process used in Textile- Fire Resist and Fire Proof Finish, Mildew Proof Finish, Moth Proof Finish, Water Proof Finish and Water Resist their Importance and Uses.
- Introduction to Dry and Wet Cleaning their Importance and Uses.
- Detailed Study of Spray Gun Machine, Vaccum Cleaner and Brushing Machine used for Dry Cleaning and Washing of Different Textiles.
- Detailed Study of Various Types Wet Cleaning Washing Machine(Rope Form,Open Width)
- Uses and Importance of Stenter Machine for Drying and Heat-Setting for Polyester.
- Cleaning of Carpets, Galicha, Sofa Sets and Wall Hangings.
- Quality Inspection of Unevenness and Strength Defects in Finished Goods
- Folding and Packing of the Finished Articles.

## **TEXTILE TESTING AND FINISHING**

### **PRACTICAL**

**Time: 3 hrs**

**Marks : 50**

- Detailed study of textiles fibres (by physical and chemicals methods) to identify the dye applicable to the given fibre.
- Qualitative and quantitative analysis of different blends-terry-cot, terry-wool, terry- viscose, cots-wool, cotton, cashmilon.
- Practice of dry cleaning woolen garments.
- Practice of wet cleaning.
- Practice of testing shrinkage of cotton.
- Colour fastness testing with grey scale.(light ,washing, rubbing).
- Practice of cleaning of cusion chairs.

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**PAPER-II**

**TEXTILE DESIGNING AND PRINTING - II**

**THEORY**

**Time : 2 Hrs**

**Theory : 30 Marks**

**InA : 10 Marks**

**Practical : 50 Marks**

**Total : 90Marks**

- Classification of Printing Styles - Direct, Discharge and Resist Styles.
- Direct Style-Block and screen Printing.
- Discharge Style-Oxidation and Reduction Printing
- Resist Style-Batik, Tie and Dye and Chemical Resist Printing.
- Introduction to Digital Printing.
- Printing of Cotton Fabric using Direct Dyes, Rapid Fast Dyes, Reactive Dyes with Direct Style.
- Printing of Synthetic and Blended Fabrics with Pigment Colours, Disperse and Reactive Dyes.
- Printing Machinery: Flat Bed, Rotary and Roller Printing Machine, their Operations, Techniques, Advantages and Disadvantages.
- Making of Screens by Direct and Photographic Method and Printing with Screen on Various Textiles.
- After Treatment Given to Printed Textile Fabric -Drying, Steaming, Ageing and Washing.
- Machine used for after Treatment for Printing Fabric. Stenter M/C, Steamer, Star Ager, Pressure Ager, Tumble Dryer Washing Machines.
- Introduction to Computer Aided Designing.
- Introduction to Computer Colour Matching.

## **TEXTILE DESIGNING AND PRINTING -II**

### **PRACTICAL**

**Time: 3 hrs**

**Marks : 50**

- Practice of printing cotton fabric with batikstyle.
- Practice of chemical resist printing style on cottonfabric.
- Practice of tie and dye techniques for cotton fabric printing.
- Practice of printing direct dyes on cotton fabric with block, screen and spray printing method.
- Practice of printing rapid fast dyes on cotton fabric with block, screen and spray printing method.
- Preparation of screen for printing textile articles and material.
- Practice of printing a blended fabric-blended, terry-cot, cots-wool, with pigment colours with screen printing using different colours.
- One article to be worked out with a combination of two or more techniques e.g. tie and dye and block-printing; batik and fabric printing; spray and screen printing.
- Making printing designs with computer techniques/ aides.
- Make any one printed article using Tie and dye/ Block printing/ Spray printing/ Screen printing



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TEXTILE DYEING -II**

**PAPER-III**

**THEORY**

**Time : 2 Hrs**

**Theory : 30 Marks**

**InA : 10 Marks**

**Practical : 50 Marks**

**Total : 90Marks**

- Scouring and Bleaching of Acetate Rayon, and Acrylic (Cashmilon), Cotton, Silk, Wool.
- Dyeing of Polyester with Disperse Dyes using Conventional Carrier and High Temperature/High Pressure Method.
- Properties and Applications of Basic Dyes on Cashmilon.
- Dyeing of Nylon with Acid Dyes and Direct Dyes.
- Application of Direct Dyes on Viscose.
- Dyeing of Blended Yarn (Poly/Wool, Terrycot) with Disperse Dye, Acid and Reactive Dye in Double Bath.
- Dyeing of Blended Yarn (Poly/Wool, Terrycot) with Disperse Dye, Acid and Reactive Dye in Single Bath.
- Study of Machinery used in Textile Dyeing-Winch Machine, Jigger Machine, Beam Dyeing Machine, Jet Dyeing Machine, Soft Flow Machines, Cone Dyeing Machine and Cabinet Dyeing Machine, Continuous Dyeing Range (CDR) Machine.
- Types of Hydroextrator used for Fibre, Fabric and Yarn.
- Radio-Frequency (R/F) Dryer for Yarn/Fibre.
- Reduction Cleaning (R/C) for Polyester.
- Introduction to Effluent Treatment Plant (ETP) Unit.

**TEXTILE DYEING -II**

**Time: 3 hrs**

**PRACTICAL**

**Marks : 50**

- Practice of scouring and bleaching of acrylic, viscose and terrycot.
- Practice of dyeing of polyester with disperse dyes using carrier method.
- Practice of dyeing cashmilon with basic dyes.
- Practice of dyeing nylon with acid and direct dyes.
- Practice of dyeing terrycot.
- Practice of matching shades with direct dyes.
- Prepare shade cards of primary colours with white colour.