

**MADHYA PRADESH BHOJ (OPEN)UNIVERSITY BHOPAL**  
**DIPLOMA IN FASHION TECHNOLOGY (DFT)**  
**SYLLABUS**

***PAPER -1:-INTRODUCTION TO TEXTILES.***

**MAX-100**  
**TERMEND-70**  
**ASSIANMENT-30**

**UNIT-I-Introduction to textiles. Polymerization –**

Types of polymers-requirements offiber forming polymers –Definition of textile fiber and filament. General considerations with regard to fibre properties.Classification of fibers.Brief study on Cotton, silk. Wool and Bastfibres (flax and jute only).Introduction to Manmadefibres – Filament spinning methods – Brief study on Semi Synthetic fibres. Viscose, HWM fibres (modal and tencel) & Acetate fibres with their properties - Brief study of synthetic fibers (polyester, nylon, polyacrylic& spandex) and their properties.

**UNIT –II Introduction to Yarn Formation –**

Cotton Yarn Production sequence and objectives – Comparison of Carded and Combed Yarn – Quality requirements for Hosiery Tarn. Study of Yarn numbering systems – Yarn and Package defects.

**UNIT – III Classification of Fabric forming methods –**

Weaving operation – process sequence – Comparison between Knitting and Weaving – Classification of Looms.Knitting Terms & Definitions – Comparison of Weft and Wrap Knitting Classification of Wrap and Weft Knitting Machines – Weft Knitting Machine Elements.

**UNIT – IV Knitting Cycle of single Jersey & Double Jersey –**

Basic Structures – Modern Knitting concepts & Specialty Knitting - Simple calculations Web Knitting Stitches & Notations – Basic Weft Knit Structures – Properties – Derivatives of Single Jersey, Double Jersey Fabrics – Identification of Swatches.

**Unit – V Introduction to Wet Processing –**

Brief Study of Preparatory Processes of Dyeing and Objectives- Meaning of Dyes and Pigments - Various Classification methods of Dyes – Principle & Method of Dyeing of Cotton Knitted Fabric – Principle and Working of Jigger, Beam Dyeing, Winch, Soft Flow and Air Flow Machines. Introduction to Printing – Brief Study on Different Styles of Printing & different methods of Printing- defects in Dyed and printed cloths : Causes and Remedies. Introduction to Finishing – Mechanical and Chemical Finishing.

**References:**

1. Textiles : Fiber to Fabric 6<sup>th</sup> Edition. Bernard P. Corbman,. International Students' edition. McGRAW Hill International Edition book co Singapore (1985)
2. Fabric science, 5<sup>th</sup> edition, Joseph, J.P. et. al. Fairchild publications, New York (1990)
3. Textile chemistry, Peters, R.H. Vol i, ii, Textile Institute Manchester. (1970)
4. Technology of textile processing , Shenai, V.A. Vol i, ii, v, vii, Sevak publications, Bombay (1981)
5. Textile Science 2<sup>nd</sup> Edition, E.P.G. Gohl& L.D. Vilensky, CBS Publishers and Distributors. (2006)

**PAPER -2:-FASHION DESIGN CONCEPTS AND METHODOLOGY.**

**MAX-100  
TERMEND-70  
ASSIANMENT-30**

**UNIT – I Introduction to Fashion–**

definition and origin – terms and definitions – reasons for change in fashion – classification of fashion – Style, classic, FAD, Trend – fashion cycle. Fashion designing – designers’ role in styling and production of costumes.

**UNIT-II Design – Definition, Types–**

Structural and decorative design. Elements of design – line, shape, form, colour& texture. Lines – varieties and their application in a design. Shapes – Types – Natural, stylized, geometrical, and abstract. Colour – Definition and origin – Characteristics (hue, value and intensity) – Prang colour chart – colour harmony and colour schemes. Psychology of colour and its application in apparel market . Texture – types of texture and its application in clothing.

**UNIT – III Principles of design–**

Balance, proportion, rhythm, harmony & emphasis .Balance – asymmetrical and symmetrical. Types – formal, informal and radial. Proportion or scale – planning the shapes and space. Rhythm – through repetition, alteration, progression and gradation. Emphasis using contrast colours and background . Harmony of lines, shapes, colour and textures.

**UNIT – IV Introduction to neck lines, waistlines, hemlines, collars, sleeves, cuffs, plackets and pockets.**

Fullness applied in apparel – tucks, pleats, gathers, shirring, frills or ruffles, flounces.

**UNIT – V Silhouettes–**

Types and their applications in everyday use. Skirts – Basic concepts in designing the variety of skirts. Trousers - Basic concepts in designing the variety of trousers. Wardrobe planning – design, development for formal, casual, party and sports wears for men, women and kids based on their location.

**REFERENCES :**

1. Sumathi, G.J. “Elements of Fashion and Apparel Design”. New Age International Publishers, New Delhi.
2. Kathryn McKelvey, “Fashion Source Book”, Balckwell Publishing, New Delhi.
3. Jane Mills and Janet K. Smith, “Design Concepts”, Fairchild Publications, New York.
4. Judith Rasband ‘Wardrobe strategies for women’, Delmar Publishers, London.
5. Jeannette A. Jarnow, MirianrGuerreiro& Beatrice Judelle, “Inside the fashion business” 4<sup>th</sup> edition, Mac Millan Publishing Company, New York.

**PAPER -3:-GARMENT CONSTRUCTION.**

**MAX-100  
TERMEND-70  
ASSIANMENT-30**

**UNIT – I Elements and Functions of Clothing –**

Garment Analysis and its Classification – Measurement and Size Charts for Men, Women, and Children – requirement and Breakdown of Garments Flow Process – Torso and Bifurcated – Case Study on Standard Body Measurements of Different Countries for Men, Women and Children Clothing.

**UNIT –II Concepts of Basic Pattern and Grading–**

Rules for Developing Basic Patterns - Pattern Materials & Limitations – Pattern Making Tools – Introduction to Computer Aided Pattern Making and Grading. Developing Necklines in JewlNeck – Round Neck –‘U’ Neck – Square Neck – Pentagon Neck Star Neck – Inside and Outside

Scallop Bateau Neck Developing Sleeves in Plain – Loose – Puff Sleeves. Concepts and Theories for Making Components and Parts of Fashionable Garments for different Categories.

**UNIT – III Drafting and Cutting the Patterns of following Styles, Basic T-Shirt –**

Polo Shirt – Singlet – Athletic Sport – “V” Neck. Drafting and Cutting the Patterns of following Styles, High Neck – Henley Neck – T Shirt with Hood Raglan Sleeve – Kimono Sleeve. Drafting and cutting the Patterns of following Styles Children’s wear – Night wear – Brief – Shorts – Legging. Defects in Pattern, Causes and Remedies. Checking fit for garments. Causes for poor fit.

**UNIT – IV Description of Basic Garments, Sewing machinery –**

parts – needle, Take – up – lever, Bobbin, Bobbin case, Presser foot, Tension disc, feed dog. Identification and classification of Sewing Machineries : Lock Stitch, Chain Stitch. Over lock and Flat lock. Machine Bed Types : Flat Bed, Cylindrical, Raised and Clamp Type. Feed Mechanisms : Drop, Needle Feed, Differential, Puller, and Clamp Feed. Various Attachments : Presser Feet – Sewing Guides – Folders, Binder, Edge-Guides.

**UNIT - V** Brief study on classification of Stitches & Seams and their Applications. Study about flow of processes for Sewing. Various Styles of Garments. Various sewing defects, causes and remedies. Brief study on Trims and Accessories : sewing Thread, Needle, Label, Zips, Lining, Interlining and Fasteners. Quality, Parameters of Accessories and Trims.

**References :**

1. Pattern making for fashion design – H.G. Armstrong
2. Metric pattern cutting – Winifred Aldrich
3. Pattern making made easy – Gollian Holman
4. Technology of clothing manufacture – Carr & Latham
5. Apparel manufacturers handbook – Jacob Solinger
6. Guide to Sewing machine
7. Catalogues of accessories

***PAPER -4:-TECHNIQUES OF SURFACE ORNAMENTATION.***

**MAX-100  
TERMEND-70  
ASSIGNMENT-30**

**UNIT – 1 Introduction to Surface Ornamentation and Embroidery–**

General rules for Hand and Machine Embroidery – Special attachments to Sewing Machines for Embroidery – Tools and Equipments – Needles – Threads.

**UNIT – II Hand Embroidery stitches –**

Running Stitch – Laced Running Stitch – Back Stitch – Stem Stitch – Satin Stitch – French Knot – Bullion Knot – Cross Stitch – Blanket Stitch – Button Hole Stitch – Corel Stitch – Spider Web Stitch – Fly Stitch – Feather Stitch – Chain Stitch – Lazy Daisy Stitch – Roumanian Stitch – Chevron Stitch – Cretan Stitch – Faggoting Stitch – Fern Stitch – Fish Bone Stitch - Herringbone Stitch – Couching. Techniques of Crocheting, Tatting and hand knitting to produce different designs.

**UNIT – III Special Stitches–**

Counted thread work on canvas material – Drawn Thread Work – Cut work – Bead work – Mirror work – Sequins work. Designing and producing fabric appliques and placing it on children and women’s apparel.

**UNIT – IV Introduction to Print Design–**

Repeat patterns – Block, Drop, Brick variations. Tie and dye techniques – Spotting marble effect, Chevron effect using stitches and different types of folding to create new designs.

**Techniques of Batik** – Free hand drawing, Stitches over a design. Marble effect, splashing of wax on fabric before dyeing and other creative ideas. Fabric painting – Outline drawing, shading

with dry and wet strokes. Stencil preparation and use of stencils to produce designs – tooth brush spraying and other creative techniques.

#### **UNIT – V Machine embroidery stitches using SNLS machines–**

running stitch, long and short stitch, cut work. A detailed study on computerized embroidery machines – Concept of designing using software – Method of punching designs – Special attachments for sequins – Cording – Boring – Chenille works.

#### **References :**

1. Encyclopedia of Embroidery Stitches including Crewel – Dover Publications – 1974
2. Computerized Encyclopedia of Needle Work – Therese De Dillmount – 3<sup>rd</sup> Edition
3. Decorative Painting Techniques Book – Val Holmes – 2003
4. Traditional Indian Motifs for Weaving and Printing.
5. 5000 Designs and Motifs from India – AjitMookerjee – 1996
6. Barudan / Tazima /ZSK Embroidery Machines Catalogue.

### ***PAPER -5:-FASHION DESIGNING AND ILLUSTRATION – PRACTICAL.***

**MAX-100**

#### **Section A**

1. Free hand drawing of lines and strokes. Drawing heads and faces – hairstyles – arm, hands, legs and feet.
2. Introduction to 8 head theory and developing a stick figure into block and flesh figure. Understanding the basics of different head theories and application of 10 head theory in illustration.
3. Rendering of fabric swatches and fabric drapes using different media – colour pencils, marker pens, water colour, poster colours and drawing inks.
4. Introduction to flat sketches –different type of skirts, trousers, necklines, collars, sleeves, coats and jackets.
5. Designing flat sketches for children – Boy and Girl – casual wears, night wear, and sportswear and occasional wear.
6. Designing the sketches for Women – Formal wear – casual wear – sportswear – night wear – lingerie – beach wear, party wear and ballroom gowns.
7. Designing flat sketches for men – Formal wear – casual wear – sportswear
8. Illustrating children – Boy and Girl in front view, back view, slide view, and 3/4<sup>th</sup> view adopting the head theories.
9. Illustrating Women in front view , Back view, Slide view and 3/4<sup>th</sup> view adopting the head theories.
10. Illustrating Men in Front view,Back view, Slide view and 3/4<sup>th</sup> view adopting the head theories. Converting photographic poses from magazines into fashion illustration – stylized figures.
11. Creation of portfolio – Preparation of mood board – customer profile – colour palette – swatch board – flat sketch and illustration,

#### **Section – B**

##### **COMPUTER APPLICATION in FASHION DESIGNING**

1. Using MS Word, prepare the given report.
2. Using MS Excel, prepare the given Balance Sheet.
3. Using MS Excel get the output in various formats such as Histograms, pareto chart etc. for the given data.
4. Using MS Excel do the given calculations and prepare the required statement.
5. Using MS Power Point Prepare the flow chart and presentation slides for the given topic.

6. Design new motifs and create print design using Corel Draw package.
7. Work on Adobe Photo Shop and create portfolios.
8. Using Illustrator Software, illustrate Men and Women in different costumes.

**References :**

1. Fashion design illustrator (men, women, children) – Patric John, Ireland.
2. Fashion design drawing and presentation -Patric John, Ireland.
3. Fashion sketch book – BinaAbling
4. Advanced fashion sketch book – BinaAbling

***GARMENT CONSTRUCTIONS – PRACTICAL***

**Section A : Making of Pattern**

Draft and construct the Pattern of given styles/ sample as per the specification given

**MEN’S WEAR KID’S WEAR**

- |                               |                 |
|-------------------------------|-----------------|
| 1. Basic T-Shirt              | 1. Bib          |
| 2. Polo T-Shirt               | 2. A line Frock |
| 3. T-Shirt with full Sleeve   | 3. Plain Frock  |
| 4. T-Shirt with Raglan Sleeve | 4. Ramber       |

**WOMEN’S WEAR**

1. Ladies Tops
2. Ladies Shirt
3. Blouse
4. Skirt ‘A line’

**Section B : Machine part and threading**

1. Draw the Threading Diagram of SNLS Machine and describe the various parts of machine.
2. Draw the Threading Diagram of overlock machine and describe the various parts of machine.
3. Draw the Threading Diagram of flatlock machine and describe the various parts of machine.

**Section C : Pedaling Exercise on Paper and Fabrics :**

1. Straight and Curves
2. Squares, Rectangles
3. Triangles and Unlimited shapes

**Section D : Making of various Seams and Components**

1. Various Seams Types – Superimpose, Bound, Lap, Piping etc.
2. Samples of Components such as

- |                  |                   |
|------------------|-------------------|
| A. Round Neck    | B. Scallop Neck   |
| C. Gents Placket | D. Ladies Placket |
| D. Cross Pocket  | F. Band Collar    |

**Section E : Making of Final Garments**

Draft the Pattern, Cut & Construct. The following Garments for the given measurement :

1. Men’s Crew Neck / Henley Neck / Raglan Sleeve Shirt
2. Men’s Vest RN / RNS
3. Ladies Neck’