

<b>Annexure No.</b>	<b>41 A</b>
<b>SCAA Dated</b>	<b>29.02.2008</b>

**BHARATHIAR UNIVERSITY: COIMBATORE**  
**REGULATIONS FOR M.Sc. DEGREE COURSE IN TEXTILES AND**  
**CLOTHING**  
**With Semester System**  
**(With effect from 2007-2008)**

**1. Eligibility for Admission to the Course**

A candidate who has passed the B.Sc Degree in Home science branch with atleast one paper in Textiles and clothing or B.Sc degree in costume design and fashion /fashion designing / Textiles and clothing / apparel designing and fashion arts / B.S. Apparel Design. Family and community science, B.Sc apparel and fashion Technology or any UG programme with PG diploma in Fashion designing / costume design and Beauty care / Garment Manufacturing technology as main subject of study of this university or an examination of some other University accepted by the syndicate as equivalent thereto shall be eligible for admission to the Master Degree of this University.

**2. Duration of the course**

This course of study shall be based on Semester System. This course shall consists of four semesters covering a total of two academic years. For this purpose, each academic year shall be divided into two semesters; the first and third semesters; July to November and the second and the fourth semesters; December to April. The practical examinations shall be conducted at the end of even semester.

**3. Course of Study**

The course shall be under the semester system according to the syllabus to be prescribed from time to time. This course consists of core subjects and elective subjects. There shall be one paper on applied skill oriented, subject preferably in each semester as part of the adjunct diploma programme.

**4. Scheme of Examinations**

As given in the respective board.

Distribution of Marks		
Core	-	1800
Diploma	-	400
Total Marks	-	2200

**5. Requirement to appear for the examinations**

a) A candidate will be permitted to take the university examination for any semester, if  
 i) He / She secures not less than 75% of attendance out of the 90 instructional days during the semester.

b) A candidate who has secured attendance less than 75% but 65% and above shall be permitted to take the examination on the recommendation of the head of the institution to

condone the lack of attendance as well as on the payment of the prescribed fees to the university.

c) A candidate who has secured attendance less than 65% but 55% and above in any semester has to compensate the shortage of attendance in the subsequent semester besides, earning the required percentage of attendance in that semester and take the examination of both the semester papers together at the end of the latter semester.

d) A candidate who has secured less than 55% of attendance in any semester will not be permitted to take the regular examinations and to continue the study in the subsequent semester. He / she has to re-do the course by rejoining the semester in which the attendance is less than 55%.

e) A candidate who has secured less than 65% of attendance in the final semester has to compensate his / her attendance shortage in a manner to be decided by the head of the department concerned after rejoining the course.

#### **6. Restriction to take the examinations:**

a) Any candidate having arrear paper(s) shall have the option to take the examinations in any arrear paper(s) along with the subsequent regular semester papers.

b) Candidates who fail in any of the papers shall pass the paper(s) concerned within 5 years from the date of admission to the said course. If they fail to do so, they shall take the examination in the revised text/ syllabus, if any prescribed for the immediate next batch of candidates. If there is no change in the Text / Syllabus they shall take in the Examination in that paper with the syllabus in vogue, until there is a change in the Text or Syllabus.

In the event of removal of that paper consequent to the change of regulations and / or curriculum after a 5 year period, the candidates shall have to take up on equivalent paper in the revised syllabus as suggested by the chairman and fulfill the requirements as per regulations / curriculum for the award of the Degree.

#### **7. The medium of instruction and Examinations**

The medium of instruction and examinations shall be in English.

#### **8. Submission of record notebooks for practical examinations**

Candidates taking the practical examinations should submit bonafide record notebooks prescribed for the practical examinations. Otherwise the candidates will not be permitted to take the practical examinations.

#### **9. The minimum (Pass) marks**

A candidate shall be declared to have passed in a paper if a student obtains not less than 50% of marks in that paper. A candidate shall be declared to have passed the whole examination if the student passes in all the papers.

### **10. Improvement of marks in the subject already passed**

Candidates desirous of improving the marks secured in their first attempt within a period of two years securing 75% and above marks in the aggregated shall be not be any change in the original marks already awarded.

### **11. Classification of Successful candidates**

A candidate who passes all the examinations in the first attempt within a period of two years securing 75% and above marks in the aggregated shall be declared to have passed with first Class with Distinction.

Successful candidates passing the P.G Degree Examinations, securing 60% marks and above shall be declared to have passed the examination in First Class. All other successful candidates shall be declared to have passed the Examination in Second class.

### **12. Ranking**

A candidate who qualifies for the PG Degree course passing all the Examinations in the first attempt, within the minimum period prescribed for the Course of Study from the date of admission to the Course and secures 1<sup>st</sup> or 2<sup>nd</sup> Class Shall be eligible for ranking and such ranking will be confined to 10% of the total number of candidates qualified in that particular subject to a maximum of 10 ranks.

The improved marks will not be taken into consideration for ranking .

### **13. Conferment of the Degree**

No candidate shall be eligible for conferment of the Degree unless he / she has undergone the prescribed course of study for a period of not less than four Semesters in an Institution approved of by and affiliated to the University or has been exempted there from in the manner prescribed and has passed the Examinations as have been prescribed.

### **14. Revision of Regulations and Curriculum**

The above Regulation and Scheme of Examinations will be in vogue without any change for a minimum period of three years from the date of approval of the Regulations. The University may revise/ amend/ change the Regulations and Scheme of Examinations, if found necessary.

### **15. Transitory Provision**

Candidates who have undergone the course of Study prior to the Academic Year 2007 -2008 will be permitted to take the Examinations under those Regulations for a period of four years i.e up to and inclusive of the Examination of April 2010 thereafter they will be permitted to take the Examination only under the Regulations in force at that time.

**BHARATHIAR UNIVERSITY, COIMBATORE -46****REVISED SCHEME OF EXAMINATION AND SYLLABUS FOR  
M.Sc TEXTILES AND CLOTHING DEGREE COURSE**

(For the candidates admitted during the academic year 2007-08 batch and onwards)

SEM	SUBJECT AND PAPER		INSTRUC -TIONAL HOURS PER WEEK	UNIVERSITY EXAMINATIONS	
				DURA- TION IN HOURS	*MAX MARKS
I	Paper I	Research Methodology and Statistics	6	3	100
	Paper II	Textile Science	4	3	100
	Paper III	Indian Textile Industry	4	3	100
	Paper IV	Historic Costumes & Textiles	4	3	100
	Paper V	Fashion Designing	4	3	100
	Practical I	Fashion Designing	4	3	100
	Elective / Dip. Paper I	Fashion Merchandising	4	3	100
II	Paper VI	Advanced Pattern Making	5	3	100
	Paper VII	Apparel Quality Standard and Implementation	5	3	100
	Paper VIII	Computer in Fashion Designing	4	3	100
	Practical II	Computer in Fashion Designing	6	3	100
	Practical III	Advanced Dress Designing	6	3	100
	Elective / Dip. Paper II	Fashion Illustrations	4	3	100
III	Paper IX	Textile Chemistry	6	3	100
	Paper X	Fabric Structure and Design	5	3	100
	Paper XI	Textile Testing	5	3	100
	Practical IV	Textile Chemistry	5	3	100
	Practical V	Textile Testing	5	3	100
	Elective / Dip. Paper III	Home Textiles	4	3	100
IV		Project Work Project work & Viva voce (150+50)	4	-	200
	Diploma Practice II	Home Textiles practical	4	3	100

\* includes 25% internal assessment marks

**SEMESTER –I**  
**PAPER –I**  
**RESEARCH METHODOLOGY AND STATISTICS**

**UNIT -I**

Meaning of Research - Types of Research - Significance of Research – Research Process. Defining the Research Problem - Sources, Identification, Selection and Statement, Review of related literature

**UNIT-II**

Research Design - Meaning, Different research designs, Basic Principles of experimental design\$. Developing a Research Plan.  
Sampling: Census and sample survey, Steps in sampling design, criteria for selecting a sampling Procedure, characteristics of a good sample design, different types of sample designs.

**UNIT-III**

Methods of Data collection - observation, Questionnaire, Interview. Data processing and analysis - Collection, classification, tabulation, Graphical representation and data analysis.

**UNIT-IV**

Meaning and scope of statistics. Role of statistics in research, measures of central tendency and dispersion, Co-relation, Co-efficient of Co-relation and its Interpretation, rank Co-relation, regression equation and predictions.

**UNIT-V**

Elements of testing of a statistical hypothesis, formulation of the problem. Definition of type-I and type-II errors, Levels of significance large sample test for proportions. Difference in proportions for means and difference in means. Application of students-test for small samples for single mean, difference in means- test for equality of variance. Non - parametric test, Application of Chi-square test, ANOV A test.

**REFERENCE:**

1. Introduction to Research in Education, Ary, Hort Reinhart (1982)
2. Research in Education, Best J N, Prentice Hall, Delhi (1979)
3. An Introduction to Statistical Methods, S P Gupta, Vikas Publishing House, New Delhi
4. Research Methodology, C R Kothari, Published by K K Gupta for New Age International (P) Ltd, New Delhi
5. Statistics, Vol 1&2, G A Zeaf Textile Institute, Manchester

**SEMESTER I  
PAPER - II  
TEXTILE SCIENCE**

**UNIT I**

Introduction to Textiles - Textile fibres - Classification - essential and desirable - properties of textile fibres. Natural fibres - cultivation, Physical & Chemical properties. Man-made fibres- manufacturing, physical & chemical properties.

**UNIT II**

Study of new fibres - lycra, lyocel, ultra fine fibres, chanleleon, fibres, photo adoptive fibres, intelligent fibres, nano fibres & medical fibres. Brief study of manufacturing, physical & chemical properties.

**UNIT III**

Brief study of yam manufacturing process- types of yarns- simple yarn-ply yam-novelty and fancy yams. Texturising -important methods - types of textured yarns.

**UNIT IV**

Weaving introduction - passage of material through power loom - primary, secondary and auxiliary motions. Shuttle less looms - air jet looms- water jet looms-rapier looms - projectile looms-basic principles and operations. Knitting introduction - weft knitting & warp knitting - basic principles and operations.

**UNIT V**

Non woven - bonded fabrics - felt fabrics - laminated fabrics - decorative fabrics - braiding - netting - lace - crocheting & tatting Industrial textiles-tYFe cord. Geo textiles - medical textiles - smart textiles.

**REFERENCE**

1. Fibre to fabric, Begnard P .Corbman, MCGrawHi11 International editions.
2. Principles of weaving - R.Marks & A. T.C.Robinson.
3. Knitting technology - D.B.Ajgonkar
4. Bonded Fabrics - J.B.Kolker, Shirely Institute U.K
5. Non-Woven manufacture - NN.Banerjee
6. Industrial Application of Textiles - K.I.Floyd & H.M. Taylor, Textile Institute, Manchester.

**SEMESTER I**  
**PAPER - III**  
**INDIAN TEXTILE INDUSTRY**

**UNIT I**

Origin, Growth and Development of Indian Textile Industry - Cotton, Wool, Silk, Rayon, Man-Made Textiles, Ready made garments

**UNIT II**

Five year plans for the textile Industry - Recent plan and previous 5 Five year plans, Organisations related to the Textile and clothing Industry Concept of GATT, MFA, WTO, AIC, Globalization

**UNIT III**

Technological developments in Fibre Industry, Significance and uses Technological developments in Yarn Industry, significance and uses.

**UNIT IV**

Technological developments in Fabric Industry - woven, significance and uses. Technological developments in Fabric Industry - knitting, significance and uses. Technological developments in Garment Industry, significance and uses.

**UNIT V**

Technological developments in Printing and Dyeing Industry, significance and uses. Technological developments in Processing Industry, significance and uses.

**REFERENCES:**

1. Textiles - Fiber to fabric, Bernard P Corbman, 6th edition, Mc Graw Hill Book Co, Singapore
2. Fabric forming systems, Peter Schwartz, Trevor Rhodes, Mansour Mohammed, Noyes Publications, New Jersey, USA(1996)
3. Fabric Care, Normia D'Souza, New Age International Pvt Ltd, New Delhi Journals:

**SEMESTER I**  
**PAPER-IV**  
**HISTORIC COSTUMES & TEXTILES**

**UNIT I**

Beginning of costume - Origin of clothing, Growth of dress, out of painting, cutting and other methods.

Costumes of India - Traditional costumes of different states of India, Factors influencing costume changes. Accessories and ornaments used in India.

**UNIT II**

Costumes of far eastern countries - Pakistan, Sri Lanka, China, Burma, Thailand, Philippines and Japan. Costumes of near eastern and European Countries, Asiatic-ancient costumes.

### **UNIT III**

Costumes of ancient civilization - Egypt, Greece and Roman, Frnch costume- French costume during renaissance 450 to 1500 AD and 1700 AD.

### **UNIT IV**

English costume - English costume during middle ,ages- American costume- American from 18th to 20th century.

### **UNIT V**

Classification of traditional textiles of India

a) Woven b) Dyed c) Embroidered d) Printed Study of the following woven textiles with emphasis to fabric texture, design, color and weaving techniques -Dacca muslin, Jamdhani,Chanderi brocades, Baluchar, Himrus and amrus carpets and Kashmir shawls. Dyed and printed textiles of India. Bandhani, Patola,Ikat Techniques of dyeing, kalamkari and other printed textiles, block printed fabrics of India, famous embroideries of India and world.

### **REFERENCE**

1. Dass,.s.n, Costumes of India and Pakistan, D.B. Taraporevela Sons & CO., Bombay, 1958
2. Jamila Briiji Bhushan, The costumes and Textiles of India, O.B. Taraporevela Sons & CO., Bombay, 1958
3. Dorris Flyn, Costumes of India, Oxford and IBH Publishing co., NewOelhi, 1971
4. Lesta, K.T.Historic costumes, Chas A.Bennet and Co.,Inc, Illinonis, 1960.

## **SEMESTER I PAPER-V FASHION DESIGNING**

### **UNIT I**

Fashion sketching- Introduction, Drawing, Aspects of drawing, Tools, Differences between normal and fashion figures, Human proportion-Head. The unit of measurement, average proportion, Method of determining an individual proportion -proportion of the women's figure. The balance like eight head theory, sketching of different fashion figures, basic garment shape and accessories.

### **UNIT II**

Design - definition, types - structur and decomtive design and their requirements. Elements of design-Line, Form shape, colour and texture. Principles of Design balance, rhythm, emphasis, harmony and proportion. Applications of principles and elements of design in dress.

### **UNIT III**

Colour - definition, colour theories - prang colour chart and munsel system, Dimensions of colour - hue, value and intensity & colour harmonies - Design principles applied to colour in dress design.

#### **UNIT IV**

Methods of Dress making - home made, tailor made and readymade garments. Merits and demerits. Factors affecting selection of clothing - choice of clothing accessories to express individuality and distinction in appearance. Applications of basic or principles in achieving pleasing personality.

#### **UNIT V**

Dress design- standards for judging costume - Aesthetic requirements for dress suitability to the individuals, Factors in personality - planning a wardrobe. Requirements for health and modesty. Planning of dressing, selection of material, texture, pattern, and colour. Suggestion for person who have unusual problems in dress. Trimmings and decorations used in Dress. Adjuncts of dress- hats, hair dressing, shoes etc.,

#### **REFERENCE:**

1. Fashion Sketch Book written & Illustrated by Bina Abling, Fair child publications, New York.
2. "Inside the Fashion Business" 4<sup>th</sup> edition by Jeanntte.A.Jaranow, Mirianr.Guerreiro and Beatrice Judelle, Macmillan publishing company, New York.
3. Mary Mathews, "Practical clothing construction", Part II Cosmic press, Madras.
4. Mr.Jimsoy and Hariet "Art and Fashion in clothing solution", Iowa state university press, Iowa.

#### **JOURNALS**

1. Femina, A times of India Publications
2. Clothesline, media and marketing association, Bombay.

### **SEMESTER I PRACTICAL I FASHION DESIGNING**

1. Eight head theory, lay figure sketching. Drawing different fashion figures in different poses for garment and accessory displays.
2. Drawing and preparing samples for the following:
  - Application of principles of design in dress designing
  - Prang colour chart
  - Value chart
  - Intensity chart
  - Standard color harmonies
3. Design development - developing textile design suitable for spot, borders of all over design for accessories and garments.
4. Preparing samples for surface trimmings
5. Drawing diagrams for fashion designing for the persons who have unusual problems in dress.
6. Planning wardrobes for different age groups.
7. A report on visit to fashion show and window displays.

**SEMESTER -I**  
**Diploma - PAPER -I**

**APPAREL MERCHANDISING**

**UNIT I**

Introduction to Merchandising, Understanding fashion Merchandising, Scope of Merchandising, Fashion merchandising terminology, Role of Merchandiser

**UNIT II**

Types of Merchandising – Export House – manufacturer - Buying house, Buying Agency – Selection of Buyer’s & Buying Agency

**UNIT III**

Pre-buying Activity, Fabric types, properties and Behavior, selection of Fabric, Garment construction, Quality requirements, quality problems, Merchandiser’s role after production, Delivery date extension, transport delays – Natural calamities, Importance of LC amendments

**UNIT IV**

Knowledge of Fashion Trends, Brands and Designers, Introduction to international designers, Business opportunities and avenues, Interdepartmental relationship for merchandiser, Boutique handling

**UNIT V**

Marketing analysis – Advertising and Media Planning, Fashion shows and other events, Industry tour and Project, Role play, Surveys and organizing of exhibitions-Visual Merchandising

**REFERENCES:**

- 1.Fashion Design and Product Development, Harold Carr and John Pomeroy, Black well Science Inc, Cambridge (1992)
- 2.Fashion marketing, Mike Easey, Oxford University press, Wynford Drive, Don Mills, Ontario (1995)
- 3.Introduction to Fashion, Patrick John, B T Batsford Ltd, Ireland, Fullham road, London (1992)
4. Fashion From Concepts to Consumer, Stephens Frings, PrenticeHall , 7<sup>th</sup> Edition 2002.
5. Marketing Management, Philip Kotler, Prentice Hall , 7<sup>th</sup> Edition 1996

**SEMESTER II  
PAPER VI  
ADVANCED PATTERN MAKING**

**UNIT I**

Selection of appropriate fabrics and designs for different garments, different age groups and seasons. Calculating fabric requirement. Definition for draping, techniques of draping, preparation of dress form bodice, sleeve and skirt.

**UNIT II**

Body measurement - preparation and principles for measuring and its techniques. Standardizing body measurements. Practical exercise in standardizing for anyone age group.

Drafting - definition, types, paper pattern and commercial pattern, principles of drafting, preparation of bodice block for standardized measurements. Preparation of commercial pattern for anyone garment.

**UNIT III**

Flat pattern techniques - definition, pivot, slash and spread method, relocation of darts. Converting darts into seams and yoke. Shifting darts to new position. Adding fullness at the top and bottom edges of the dress styles, designs with fullness of various types.

**UNIT IV**

Good fit-definition-principles and rules for good fit. Solving fitting problems for various garments. Pattern alterations-importance and principles. Pattern alteration for irregular figures-Mending and renovating clothing items - definition, types of darning and patching methods.

**UNIT V**

Computerised pattern making and grading. Designing and preparation of patterns for children, women and men's garments using computer. Grading the patterns using computer.

**REFERENCE**

1. Practical dress Design - Mabeld .Erwin, Fifth Printing - 1961.
2. Hedge.K.M., Scientific Garment cutting, Hedge.K.M and Sons, Pune 1983.
3. Subramaniam, Dress making, Tailoring & Embroidery College, Bombay 1987
4. Sundaram K.P. Tailoring Art(Third Edition) Uvander Printers, Chennai 1986
5. Mary matheews, Practical clothing constructionj, 1991, Part II, Designing, Drafting and tailoring, Chennai.

**SEMESTER II**  
**PAPER VII**  
**APPAREL QUALITY STANDARD AND IMPLEMENTATION**

**UNIT I**

Introduction to quality standards, importance, benefits, levels and sources of quality standards, British standards & ISO Standards for the Apparel Industry, ISO 9000 & 14000 standards, Total quality Management systems, Co Labeling & OKO Tex 100 standards

**UNIT II**

Sensitizing dye stuffs, allergic dyes, carcinogenic amines, red-listed as per Eco industry, Global Scenario, Eco mark & Environment friendly textiles  
Garment defects - cutting defects, sewing defects, assembly defects, pressing, finishing and packaging defects

**UNIT III**

Eco specification & restrictions in apparels and textiles - dry cleaning using ozone depleting chemicals, PH values, formaldehyde contents, heavy metal contents, Pesticides and herbicides, azo dye stuffs, Nickel, Pentachlorol phenols, color fastness, brighteners, softening agents etc.,

**UNIT IV**

Starting a quality control program, implementation of quality systems in production line, product specifications and analysis using analytical tools. Quality management through inspection, testing and sewing quality tools

**UNIT V**

Quality costs and customer returns, inspection procedures, AQL and quality control

**REFERENCES:**

1. Managing quality in apparel industry, Pradeep V Mehta, NIFT Publications
2. An Introduction to quality control for the apparel industry, Mehta P V, Marcel Dekker
3. Physical testing and quality control, Vol 23, No. 1/2/3 textile Institute (1993)
4. Textile Testing, John Skinkle, Brooklyn Publication, New York
5. Textile Testing, P.Angappan & Gopala Krishnan, JK Publications

**SEMESTER II**  
**PAPER VIII**  
**COMPUTER IN FASHION DESIGNING**

**UNIT I**

Computer Basics - computer specifications - input / output devices - concept of CIM - Computer Aided Fashion - Computer Aided Garment Manufacture Corel Draw Development of designs for surface"" decorations

**UNIT II**

Computer application in fabric checking- fabric laying-cutting- sorting - labeling. Computer application in apparel designing-Pattern making, grading- digitizer, plotter-duplicating- marker planning - maker efficiency - body scanning and measurement concepts.

**UNIT III**

Computer application in Textile designing - creating weaves- plain, striped and checked, dobby and jacquard designs- printed designs- designing software- textile and apparel designing.

**UNIT IV**

The impact of colour graphics of clothing design - CAD in fabric design - CAD in clothing design - Computer colour graphics - creating visual images.

**UNIT V**

Computer application in sewing and embroidery - Computer aided colour matching - computer controlled overhead transport and warehouse storage systems. Concepts of enterprise resource planning - supply chain management.

**REFERENCES:**

1. Softwares; Adope Photoshop Corel Draw, TukaCAD, Tuka Studio
2. Computer Aided Design and Manufacturing, Groover M P, Zimmers E W, Prentice hall International
3. CAD in Clothing and Textiles, Winfred Aldrich, II
4. Computer in fashion Technology- Patrick Taylor.
5. Operating manuals of Textile and Apparel Designing software.
6. Computer Technology for the world of Textile - WRC simty publications & Co., Atlanta 1970.

**SEMESTER II - PRACTICAL II**  
**COMPUTER IN FASHION DESIGNING**

1. Design a collection with a theme - Theme can be framed by the students - design for 5 collections - collection should have a minimum of 10 garments
2. The presentation of Portfolio in the computer - If done manually, the mood board, Fabric board has to be scanned and rendered into the computer - 6 presentations
3. Preparation of Patterns for the following
  - Salwar Kameez
  - Middi and Tops
  - T-Shirt
  - Full Sleeve Shirt
  - Trousers - Narrow bottom or Bell bottom
4. Grade the following patterns for 3 sizes
  - Salwar Kameez
  - Middi and Tops
  - T-Shirt
  - Full Sleeve Shirt
  - Trousers - Narrow bottom or Bell bottom
5. Production planning - for 2 different orders
6. Marker planning for the following garments
  - Salwar Kameez
  - Middi and Tops
  - T-Shirt
  - Full Sleeve Shirt
  - Trousers - Narrow bottom or Bell bottom

**SEMESTER II - PRACTICAL III**

**ADVANCED DRESS DESIGNING**

1. Design and construct Children's garment of recent fashion - any 2 styles
2. Design and construct Women's garment of recent fashion - any 2 styles
3. Design and construct Men's garment of recent fashion - any 2 styles
4. Design and construct garment for a Party wear
5. Design and construct garment for a Fashion Show based on a theme
6. Method of Pattern Making - Draping or Drafting method
7. Develop a Portfolio for all the garments

**SEMESTER II - DIPLOMA - PAPER – II          PRACTICAL – I**

**FASHION ILLUSTRATIONS**

Prepare the following Illustrations

1. Different Types of Lines in a Garment – Illustrate the line effects in the same silhouette – any 5 types
2. Creating Checked effects in a garment – one colour and more than one colour
3. Creating Printed effects in a garment – one colour and more than one colour
4. Drawing from Photographs – any 2 garment designs
5. Portfolio Presentation – with theme Board, Mood Board, Flat Sketches, Fabric swatches, Accessory samples – for the following collection
  - a. Fashion Show – with a theme – 10 garments
  - b. Winter collection – 10 garments
  - c. Summer Collection -10 garments
  - d. School Uniform – 10 garments

**SEMESTER III  
PAPER IX  
TEXTILE CHEMISTRY**

**UNIT I**

Introduction Process sequence – singeing, shearing, designing, scouring, bleaching and mercerizing – objectives, types, process parameters, operations and machines. Evaluation of fabrics – absorbency, whiteness, chemical change and degradation.

**UNIT II**

Dyeing – Theory of dyeing –Classification of colourants –fastness properties of dyes- direct, reactive, vat sulphur, azoic, acid, basic, disperse and natural dyes – properties and application on suitable material.

Dyeing machines – fibre, yarn, hank and package. Fabric – Jigger, winch, soft flow, HPHT, Jet, Continuous dyeing and garment dyeing machines.

Dyeing defects, causes and remedies.

Enzymatic Dyeing

**UNIT III**

Printing – Ingredients – styles of printing – direct discharge and resist. Stencil, block, flock, batik, transfer, foam, screen, Capsule printing and tie-dye printing.

Printing machines – roller, flat bed, rotary screen and garment printing. Printing defects, causes and remedies.

#### **UNIT IV**

Wool carbonizing – degumming of silk, weighting of silk, Finishing – calendaring, shrinkage, control, heat-setting, anti creasing, water proof and repellency, fire retardants, soil release, softening, stiffening, moth proof, stone wash anti microbial and enzyme wash. Non-slip finishes, Anti static finishes, Antipilling finishes, Electrometric finishes, UV protection finishes, Insect resist and mite protection finishes. Enzymes finishes, Anti odour and fragrance finishes.

#### **UNIT V**

Pollution – types-land, water, air and noise – causes and remedies  
Effluent treatment – methods – colour removal – bio degradation  
Eco friendly textiles  
Field visit to processing unit.

#### **Reference**

1. Technology of textile processing – Volume, I, II, III, IV, VI, VIII, IX & X – V-A Shenai.
2. Dyeing and chemical technology of textile fibres – E.R. Erotman
3. Technology of Textile printing – Prayag R.S
4. Pollution in textile industry, K.B. Krishnakumar, SSM ITT Staff and students co-operative stores.
5. Treatment of textile processing effluents sakthi publications, Coimbatore
6. Chemical finishing of textiles – W.D. Schidler and P.J. Hauser, woodhead publishing and Textiles Cambridge England
7. Chemical Technology in the pretreatment processes of Textiles by S.R. Karmakar (1999) Edition Elsevier Science E.V., Amsterdam, The Netherlands.

### **SEMESTER III**

#### **PAPER X**

#### **FABRIC STRUCTURE AND DESIGN**

##### **UNIT I**

Elements of Woven design – design –draft plan-lifting plan denting order – repeat unit-graphical representation of weave.

Basic weave – plain, rib, mat, twill –pointed, broken, herringbone, transposed, elongated and combined twill.

Satin, sateen and their modifications.

##### **UNIT II**

Crepe weave – honey comb –ordinary and brighten-huck –a-back-mock leno-hop sake weaves. Colour and weave effects – continuous line-dog's tooth –birds eye-sport effects –hariline – step-strips and checks.

##### **UNIT III**

Backed cloth –warp and weft backed. Backed cloth with wadded threads. Double cloth –classification and wadden double cloth

#### **UNIT IV**

Extra Wrap figuring –single colour and multi colour planting  
Extra Weft figuring  
Bed Ford Cords  
Welts and Piques

#### **UNIT V**

Warp pile fabrics -3, pick, 5 pick and 6 pick pile structures  
Weft pile fabrics – plain back velveteen, weft plushes – corded velveteen  
Weft knit structures – single jersey, inter lock, rib and purl  
Warp knit structures – Raschel and tricot  
Automatic power flat knitting

#### **References**

1. Watson's textile design and colour – Elementary weaves and figured fabrics – Z.J. Grosicki
2. Watson's advanced textile design and colour –Compound woven structures – Z.J. Grosicki
3. Woven cloth construction – R. Marks and ATC. Robinson
4. Knitting technology- Daid J. Spencer, 2007
5. Knitting technology – D.B. Ajgaonkar
6. Handbook of Weaving – Sabit Admae Ph.D., Sulzer.

### **SEMESTER III PAPER XI TEXTILE TESTING**

#### **UNIT I**

Introduction to testing – terminology of testing – selection of samples for testing – standard R H and temperature for testing – measurement of moisture regain – conditioning oven – Shirley moisture meter.

#### **UNIT II FABRIC TESTING**

1. Cotton Fiber length – Baer Sorter
2. Fineness – Air flow principle, Instruments, Sheffield micronaire
3. Maturity – Caustic soda swelling
4. Strength – Pressley bundle strength tester, Stelometer
5. Determination of trash and lint in cotton – Shirley trash analyzer

#### **UNIT III Yarn Testing**

1. Yarn numbering system – conversion of count from one system, to another
2. Instruments for count determination –quadrant balance, Beesley balance
3. Yarn strength testing – Principles of CRT, CRL, CRE-Single strength tester, Lea strength tester
4. Yarn twist – Direction of twist, twist multipliers, Twist testers – tension type, ATIRA direct type tester

5. Yarn evenness – classification of variation, methods of measuring evenness – black board, ASTM standards, Uster evenness tester, Uster Standards, yarn Faults, classifications, Classimat
6. Yarn hairiness and crimp testing

#### **UNIT IV**

##### **Fabric testing**

1. Fabric particulars length, width, crimp, weight, cover factor
2. Fabric strength fabric tensile strength tester, tearing strength tester, hydraulic bursting strength tester
3. Fabric Abrasion – resistance, handle, serviceability, assessment, Martindale abrasion tester
4. Fabric Piling – ICI Pill box tester
5. Fabric drape – Measurement, Drape meter
6. Fabric stiffness – Shirley stiffness tester
7. Fabric crease resistance and crease recovery measurements
8. Fabrics permeability – Shirley air permeability tester, fabric water permeability tester, Bundersmann tester.

#### **UNIT V**

Chemical Analysis of Fabric finishes of performance – related tests

- a. Durable press testing
- b. Flame Retardency testing
- c. Soil Release testing
- d. Repellency Testing
- e. UV Protective testing
- f. Antimicrob Testing
- g. Anti baotried testing
- h. Anti fragment testing
- i. Anti insect testing
- j. Anti Felting testing

Colour Fastness in Textiles – Chocking test, perspiration test, Sunlight, laundering, pressing and dry cleaning aspects, whiteness index, matching cabinets, computer matching.

##### **Reference**

1. Principles of Textile Testing, Booth J E, Hoybooks, London (1970)
2. Technology of Textile properties, Marjorie A Taylor, Forbes Publications Ltd, London (1972).
3. Textile Testing Angappan P and Gopalakrishnan R, SSM Institute of Textile Technology, Komara Palayam.
4. Fiber Science, Mishra S P and Kesavan B K, SSM Institute of Textile Technology, Komara Palayam.
5. Objective evaluation of fabrics, Styios G, John Wiley & sons USA.
6. Chemical Testing and Textile edited by Qingofan Wood Head Publishing in Textiles, Cambridge, England.

**SEMESTER III  
PRACTICAL IV  
TEXTILE CHEMISTRY**

**Preparation of Samples for Processing**

- Desizing
- Scouring
- Bleaching
- Mercerising

**Dye the given Fabric using suitable dye**

- Direct dye
- Sulphur Dyes
- Vata Dyes
- Disperse Dyes
- Reactive Dyes
- Acid Dyes
- Basic Dyes
- Vegetable dyes (any one)

**Prepare samples for the following Prints**

Tie and Dye, Batik, Stencil, Block, Screen and Fabric painting

**SEMESTER - III  
PRACTICALS V  
TEXTILE TESTING**

1. Determination of Tensile Strength of the given Fabric
2. Determination of Stiffness of the given Fabric.
3. Determination of Abrasion Resistance of the given Fabric.
4. Determination of Crease Recovery of the given Fabric.
5. Determination of Drape of the given Fabric.
6. Determination of Tensile Strength of the given Fabric.
7. Determination of Bursting Strength of the given Fabric.
8. Determination of Colour Fastness of the given Fabric by Crock meter.
9. Determination of Colour Fastness of the given Fabric by Perspirometer.
10. Determination of Colour Fastness of the given Fabric by Laundrometer.
11. Determination of Shrinkage of the given Fabric.

**SEMESTER – III**  
**PG DIPLOMA – PAPER – III**  
**HOME TEXTILES**

**UNIT – I**

Introduction to home textiles

**UNIT – II**

Designing and drafting home textiles

Bed Linens

Table linens

Curtains & Draperies

**UNIT – III**

Interior Decorations for Home

**UNIT – IV**

Collection of different types of layout

- a. living room
- b. Kitchen
- c. Dinning room
- d. Bed room
- e. Study room

**UNIT – V**

Hangings / mats

Wall

Door

**Reference**

1. Interior decorating effects, Stewart and sally Walton, Lorenz books – 2000.
2. The book of upholstery, Candace ord manroe, Pub – 1987 present books.
3. Design and detail, The practical guide to sayling a house, Tricia Guild of Elizabeth Wilhide. Ist pub conran octopus limit.
4. Sunset slip cover and bed spreads step by step instruction decorating ideas, Editor Christian barne and Maureen Williams
5. House keeping management Dr. D.K. Aggarwal Amman publication, New Delhi.

**SEMESTER – IV**  
**DIPLOMA – PAPER IV PRACTICAL – II**  
**HOME TEXTILES**

1. Designing and constructing home textiles Introduction to home textiles
  - ★ Bed Linens
  - ★ Table linens
  - ★ Curtains & Draperies
  
2. Collection of different types of layout
  - a. living room
  - b. Kitchen
  - c. Dinning room
  - d. Bed room
  - e. Study room
  
3. Preparation of samples for hangings / mats
  - a. Wall hangings
  - b. Door hangings
  - c. Door mats

**MODEL QUESTION PAPERS**  
**First Semester - Paper –I**  
**RESEARCH METHODOLOGY AND STATISTICS**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**  
**Section –A (10x1=10)**

1. Research helps in \_\_\_\_\_
2. Review of related literature has \_\_\_\_\_ content
3. Research design is a \_\_\_\_\_
4. Sample design are \_\_\_\_\_
5. Data collection involves collection of related \_\_\_\_\_
6. Table representation is better than \_\_\_\_\_
7. Statistics results in \_\_\_\_\_
8. Rank co-relation helps in \_\_\_\_\_
9. Statistical hypothesis element is \_\_\_\_\_
10. Anova test is done mainly for \_\_\_\_\_

**Section –B (5 x 5 =25)**

11. (a) Write on the types of Research (or)  
(b) Write on the Significance of Research
12. (a) Write on Research Problem (or)  
(b) Write on the identification and selection of the research problem
13. (a) Explain different research designs(or)  
(b) Develop a research plan with an example
14. (a) Write on Characteristics of a good sample design (or)  
(b) Write on types of sample design?
15. (a) Explain methods of data collection (or)  
(b) How do you process data collection

**Section –C (8 X 5 =40)**

16. (a) How do you classify data's (or)  
(b) How do you analyse data
17. (a) Write on role of statistics in research (or)  
(b) Explain regression equations
18. (a) Explain elements of testing of a statistical hypothesis (or)  
(b) How do you predict regression equation
19. (a) How do you apply Chi-square test (or)  
(b) How do you apply Anova test
20. (a) How do you formulate the statistical hypothesis problem (or)  
(b) Describe levels of significant

(For the candidates admitted from 2007 to 2008)

**M.Sc Degree Examination****First Semester****Paper –II****TEXTILE SCIENCE**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions****Section –A (10 x 1=10)**

1. Rubber fibre is a manufactured fiber in which the fiber-forming substance is natural or \_\_\_\_\_ rubber.
2. Fabrics made of acetate yarn are rather shape \_\_\_\_\_
3. Trade mark of spandex fibers is \_\_\_\_\_
4. Broad cloth for men's shirlings is made with \_\_\_\_\_ yarn.
5. Textural yarns are grouped into stretch, high bulk and \_\_\_\_\_ yarns.
6. Air jet looms use a jet of air to propel the filling yarn through the shed at rates of upto \_\_\_\_\_
7. Warp knitting may be \_\_\_\_\_ or tubular.
8. Rapier looms operate at speeds ranging from about \_\_\_\_\_ to \_\_\_\_\_ ppm at about the noise level of missle looms.
9. The history of Nancoovens began in \_\_\_\_\_
10. Tatting lack is a knitted hole made with the aid of a small \_\_\_\_\_

**Section –B (5 x 5 =25)**

11. (a) Write on textile fibre classification (or)  
(b) Explain on essential properties of cotton and wool fibres?
12. (a) Write on manufacturing techniques of natural fibres (or)  
(b) Describe on chemical properties of man made fibres
13. (a) Explain lycra, lyocel and photo adoptive fibres (or)  
(b) Write on nano fibres and medical fibres
14. (a) Explain yarn manufacturing process – simple and ply (or)  
(b) Write on types of textured yarns
15. (a) Write on passage of material through power looms(or)  
(b) Explain weft knitting

**Section – C (5x8=40)**

16. (a) Write on non woven, bonded and felt fabrics. (or)  
(b) Write on geo textiles and smart textiles
17. (a) Discuss on ultra fine fibres and intelligent fibres? (or)  
(b) Explain on Novelty and fancy yarns?
18. (a) Discuss on Texturising? (or)  
(b) Discuss on weaving
19. (a) Write on water jet looms (or)  
(b) Write on auxiliary motions in detail?
20. (a) Explain on operation of projectile looms? (or)  
(b) Write on Warp knitting

**Paper –III**  
**INDIAN TEXTILE INDUSTRY**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section –A (10 x 1 =10)**

1. Cotton textile is useful best in \_\_\_\_\_ season
2. High quality \_\_\_\_\_ is available at Kashmir
3. \_\_\_\_\_reeling is costlier
4. Rayons do \_\_\_\_\_
5. \_\_\_\_\_ garments are fastly moving
6. \_\_\_\_\_ of cotton fabrics are bleached by continuous peroxide methods
7. When \_\_\_\_\_ mercerized yarn is used, a silk like luster results
8. \_\_\_\_\_ is sanforset which combines ammoniating
9. Cordelem, Matrix fibers of polyvinyl chloride produced by \_\_\_\_\_
10. \_\_\_\_\_ are used for reinforcement and fire-resistant purposes.

**Section – B ( 5 x 5 =25)**

11. (a) Write on present status of cotton textile industry (or)  
(b) Explain on silk manufacture?
12. (a) Discuss on Man-made textiles (or)  
(b) Write on ready made garments
13. (a) Explain on latest 5 year plan (or)  
(b) Discuss on GATT concept?
14. (a) Write on WTO (or)  
(b) Discuss on globalization?
15. (a) Explain technological development in yarn industry (or)  
(b) Explain significance of yarn industry?

**Section –C (5 x 8 = 40)**

16. (a) Write on significance of fibre industry (or)  
(b) Write on woven material significance?
17. (a) Explain knitting industry's technological development (or)  
(b) Explain woven industry's technological development
18. (a) Discuss on printing industry's developments (or)  
(b) Write on significance of dyeing industry
19. (a) What are the use of processing industry? (or)  
(b) What is the all round position of garment industry?
20. (a) What are the garments industry's uses? (or)  
(b) Explain on AIC concept?

**Paper –IV**  
**HISTORIC COSTUMES AND TEXTILES**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section – A ( 10x 1=10)**

1. Toga is a traditional costume of \_\_\_\_\_
2. Sarong is a \_\_\_\_\_ o the Greeks
3. Pyrgian is a \_\_\_\_\_ o the Greeks
4. Cuculus is a type of \_\_\_\_
5. Winged globe is a \_\_\_\_\_
6. Bengal's headgear is a turban with a thick broad brim round the head known as \_\_\_\_\_
7. Oriya's \_\_\_\_\_ is the other name for broad bordered sari.
8. \_\_\_\_\_ is a straight cut skirt worn around the waist and reaching the ankles.
9. The main garment of Manipur women consists of a sheet of cloth called \_\_\_\_\_
10. Mundu is a piece of white cloth \_\_\_\_\_ in length and \_\_\_\_\_ in breath

**Section –B ( 5 x 5 =25)**

11. (a) Write on painting and cutting (or)  
(b) Write on Traditional costumes of Kerala
12. (a) Explain Srilankan Costumes (or)  
(b) Write on European countries costumes
13. (a) Write on Egyptian costumes (or)  
(b) Write on French renaissance 1700AD costumes
14. (a) Explain English costume of Eighteenth century (or)  
(b) Explain American costumes of 20<sup>th</sup> Century
15. (a) Write on designs and colours used in Kasmiri Shawls and Chanderi brocades (or)  
(b) Write on Kalamkari work and Bandhani work

**Section –C ( 5 x8 =40)**

16. (a) Costumes of Burma (or)  
(b) Costumes of Thailand
17. (a) Write on children costumes of France during 1500 AD (or)  
(b) Write on Block printing techniques
18. (a) Write on Roman's costume (or)  
(b) Write on Japanese Costume
19. (a) Write on Indian traditional costumes (or)  
(b) Explain Baluchar and Himrus
20. (a) Write on Patola and Ikat (or)  
(b) Discuss on Daccan Muslin and Jamdhani?

**Paper –V**  
**FASHION DESIGNING**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section –A (10 x 1 =10)**

1. The average women's figure measures \_\_\_\_\_ head length
2. Women's top of skull to end of forgo measures \_\_\_\_\_
3. The vertical lines of lapels and a jacket edge will slim your \_\_\_\_\_
4. The hue that gives an illusion of being distant or relatively far from the known as \_\_\_\_\_
5. To make a small room appear larger use plain color the \_\_\_\_\_
6. A ball, egg or square shape can be used to construct the \_\_\_\_\_
7. Most works of art begin with a \_\_\_\_\_ drawing
8. Cool colours include blues of the sky and water and the greens of rolling hills of \_\_\_\_\_
9. Tweeds and herring bones weaves can be represented with \_\_\_\_\_ and \_\_\_\_\_
10. Trimming and decorations used in dress is \_\_\_\_\_

**Section –B (5 x 5 =1=25)**

11. (a) Write on methods of determining woman's figure (or)  
(b) Explain in aspects of drawing
12. (a) Discuss on tools of sketching? (or)  
(b) Write on sketching of different fashion figures
13. (a) Explain decorative design (or)  
(b) Write a structural design
14. (a) How do you apply elements of design in Dress (or)  
(b) How do you apply principle of design?
15. (a) Explain Munsel Theory (or)  
(b) How do you apply design principles of colour in dress

**Section – C (5x8=40)**

16. (a) Explain home made garments (or)  
(b) Explain tailor made garments
17. (a) Write on balance in dress (or)  
(b) How do you achieve pleasing personality
18. (a) Plan of wardrobe for college going individual?(or)  
(b) What are the factors affecting personality
19. (a) Suggest accessories for a college going girl? (or)  
(b) What are the suggestions for persons with unusual problems in dress selection
20. (a) To trim the dress 8 yrs girls what you will add? (or)  
(b) Explain the Hair dressing done by Various age groups?

**Paper –VI**  
**ADVANCE PATTERN MAKING**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section –A (10x1=10)**

1. Cotton fabric is suitable for \_\_\_\_\_
2. \_\_\_\_\_ colour is suitable for Just born age group
3. Body should not be \_\_\_\_\_ white measuring body with the tape
4. All the measurements needed should be taken at a time itself from the particular age group for \_\_\_\_\_
5. \_\_\_\_\_ and \_\_\_\_\_ is useful for altering the pattern and change the garment accordingly
6. Adding godets in the skirt bottom helps in easy \_\_\_\_\_
7. \_\_\_\_\_ figures can try for vertical lined designs in their fabric selection
8. Darning is minute running work horizontally or vertically on the \_\_\_\_\_ part.
9. Grading rules are stored in \_\_\_\_\_, each having a unique code symbol.
10. There is a direct relationship between the grading of a \_\_\_\_\_ and that for a style pattern developed from it

**Section –B (5 x 5 =25)**

11. (a) Write on selection of appropriate fabrics for just born baby (or)  
(b) How do you prepare dress form bodice
12. (a) Explain Body measuring techniques (or)  
(b) What are the points you consider in preparing a commercial pattern for a saree blouse
13. (a) Write on slash and spread method (or)  
(b) How do you add fullness at the top and bottom edges of a Salwar
14. (a) Explain the rule for good fit (or)  
(b) Explain types of darning
15. (a) Write on Computerized grading (or)  
(b) How do you computer for preparing children's frock

**Section –C (5 x 8 =40)**

16. (a) What are the reasons for using various fabrics for different seasons? (or)  
(b) Calculate the fabric required for 1000 salwars, cameezs sets?
17. a) How do you drape a party gown? (or)  
(b) Prepare a women's sleeve in a dress form?
18. (a) How do you standardize school uniform for III Std Student? (or)  
(b) Standardize Higher secondary school students dress?
19. (a) Draft a pattern for girls summer wear? (or)  
(b) Prepare a commercial blouse pattern for a party saree?
20. (a) How do you mend a frock into a bag? (or)  
(b) Renovate a men's pant for a school boy?

**Second Semester  
Paper –VII  
APPAREL QUALITY STANDARD AND IMPLEMENTATION**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section – A (10x1=10)**

1. Many competitive companies have reached \_\_\_\_\_ as low as parts per million levels.
2. \_\_\_\_\_elements of competitiveness are quality planning to continuous improvement
3. rough surface and print leads to \_\_\_\_\_
4. Ozone depleting chemicals is \_\_\_\_\_
5. \_\_\_\_\_ is an example by pesticide
6. Pentachlorol phenols are used for \_\_\_\_\_
7. Softening agent like \_\_\_\_\_ is used in processing of cotton.
8. Sewing quality tool is \_\_\_\_\_
9. Inspection helps in \_\_\_\_\_
10. \_\_\_\_\_AQL level is normally used everywhere.

**Section –B (5 x 5 =25)**

11. (a) Write on ISO 9000 quality standard (or)  
(b) Explain Co labeling standards
12. (a) Explain Eco management of apparel industry (or)  
(b) Write on finishing and packaging defects
13. (a) Write on dry cleaning using ozone depleting chemicals (or)  
(b) Write on the brighteners and softening agents
14. (a) Explain Quality systems in production of a rib neck tea shirt (or)  
(b) How do you manage quality through inspection
15. (a) What are the customer returns?(or)  
(b) Explain inspection procedures

**Section –C (5 x 8 =40)**

16. (a) Discuss on ISO 14000 standards (or)  
(b) Describe TQM systems?
17. (a) Explain OKO Tex 100 standards?(or)  
(b)Discuss on Sensitizing dyes?
18. (a) Write on Eco mark? (or)  
(b) Discuss on Environment friendly textiles?
19. (a) Explain on pH values (or)  
(b) Discuss on Nickel and phentachlorol phenols?
20. (a) Write on softening agents? (or)  
(b) Describe sewing quality tools?

**Second Semester Paper –VIII**  
**COMPUTER IN FASHION DESIGNING**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section – A (10x1=10)**

1. Three main components of computer in Fashion design are data entry, data manipulation and \_\_\_\_\_
2. In pleat construction the information required by the software are position of pleat line, pleat distance, \_\_\_\_\_.
3. \_\_\_\_\_ type images can be complex and highly coloured.
4. In \_\_\_\_\_ type easy manipulating and layering of images but only 256 colours.
5. Working in 24 bit mode essentially means palatte availability of \_\_\_\_\_ different colours.
6. Computer technology is used in the whole of the process from pattern design to the control of the \_\_\_\_\_
7. \_\_\_\_\_ systems helps in changing colour, simulating printed, woven and knitted fabrics.
8. Benefits from \_\_\_\_\_are quality design service, informed sales service, quality product design, manufacturing flexibility.
9. Lace and embroidery work can be simulated in \_\_\_\_\_ systems.
10. There are pressure sensisitive pens which give designer a little more creative \_\_\_\_\_

**Section –B (5 x 5 =25)**

11. (a) Write on input devices (or)  
(b) Write on output devices
12. (a) Write on Corel Draw Designs(or)  
(b) Explain computer aided garment manufacture
13. (a) How do you apply computer in fabric laying(or)  
(b) Write on marker efficiency
14. (a) How do you apply computer in textile designing (or)  
(b) How do you apply computer apparel designing
15. (a) Write on colour graphics (or)  
(b) Create visual images of Kurthas

**Section –C (5 x 8 =40)**

16. (a) How do you apply computer in embroidery (or)  
(b) How do you apply computer in warehouse storage systems
17. (a) How do you doobby designs (or)  
(b) How do you create Jacquard designs?
18. (a) what is the impact of colour graphics of clothing design? (or)  
(b)Describe on computer colouring on Jacquard designs?
19. (a) Discuss or supply chain management? (or)  
(b) Describe about concepts of enterprising resource planning
20. (a) Discuss on computer controlled transport overhead? (or)  
(b) Write on computer aided colour matching?

**Paper –IX**  
**TEXTILE CHEMISTRY**

Time: Three hours

Maximum: 75 Marks

**Answer ALL Questions**

**Section -A (10x1=10)**

1. Screen printing made an impact in France by \_\_\_\_\_
2. \_\_\_\_\_printing involves uniform dyeing and fabric by any convention dyeing methods.
3. \_\_\_\_\_ burns off lint and threads as well as all fluff and fiber ends
4. Azoic dyes are used to a very great extent on \_\_\_\_\_
5. Vat dyes are the fastest dyes for cotton, linen and \_\_\_\_\_
6. Stock dyes is done in the \_\_\_\_\_ stage.
7. Slip resistance finish is advantageous for smooth surfaced \_\_\_\_\_
8. Antiodour and fragrance finishes are given to \_\_\_\_\_
9. Enzymatic finishes are given to \_\_\_\_\_
10. Mile protection finishes can be given to \_\_\_\_\_ fabrics.

**Section –B (5 x 5 =25)**

11. (a) Explain mercerizing (or)  
(b) Evaluate fabric absorbency
12. (a) Write on Reactive and natural dyes (or)  
(b) Write on enzymatic dye
13. (a) Write on capsule printing (or)  
(b) Explain printing defects and remedies
14. (a) Explain any four latest finishers(or)  
(b) Explain enzymatic and fragrance finishers
15. (a) Write on Water pollution and remedies (or)  
(b) Explain eco-friendly textiles

**Section –B (5 x 8 =40)**

16. (a) Write on shearing? (or)  
(b) Discuss on bleaching?
17. (a) Write on chemical change after mercerization (or)  
(b) Write on tie and dye printing
18. (a) Discuss on block printing (or)  
(b) Describe form printing
19. (a) Write an heat setting(or)  
(b) Write an wool carbonizing?
20. (a) Write the benefits of field visit? (or)  
(b) Discuss on electrometric finishes?

**Paper –X**  
**FABRIC STRUCTURE AND DESIGN**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions****Section –A (10x1=10)**

1. \_\_\_\_\_ has a smooth lustrous surface because the war floats.
2. \_\_\_\_\_ characterized by floats running filling wise
3. Birds-eye caused by unintentional tucking from malfunctioning \_\_\_\_\_
4. An open \_\_\_\_\_ fabric made with a special loom attachment.
5. A fabric with an extra warp or filling or both to make it heavier, thicker and provide additional warmth is a \_\_\_\_\_ fabric.
6. \_\_\_\_\_ is the filling yarn twice the normal size between 2 ends of roving running together in to single end of spinning
7. Bedford cloth is a strong woven fabric with \_\_\_\_\_
8. \_\_\_\_\_ is a fabric woven on a loom with a doobby attachment with small, raised geometric pattern
9. The \_\_\_\_\_ is a result of crossing of the sinker in this interchange sinker loops between the front and back wales.
10. \_\_\_\_\_ is reversible in appearance and has soft hand with full cover.

**Section –B(5 x 5 =25)**

11. (a) Explain denting order repeat (or)  
(b) Explain transposed twill and sateen weave
12. (a) Write on dog's tooth and strips and checks effect from the weave (or)  
(b) Write on leno-hop sake weaves
13. (a) Explain Backed cloth (or)  
(b) Explain wadded double cloth
14. (a) Explain multicolour warp figuring (or)  
(b) Write on welts and piques
15. (a) Write on automatic power flat knitting (or)  
(b) Write on weft pile fabrics

**Section –C (5 x 8 =40)**

16. (a) Explain woven design and draft plan? (or)  
(b) Write on Herring bone and mat weave
17. (a) Write on brighten huck a –back? (or)  
(b) Discuss on colour effects
18. (a) Classify and explain double cloth?(or)  
(b) Write on warp backed cloth?
19. (a) Write on bed ford cards? (or)  
(b) Discuss on Extra weft figuring
20. (a) Write on 6 pick pile structures? (or)  
(b) Describe corded velveteen?

**Paper –XI**  
**TEXTILE TESTING**

Time: Three hours

Maximum:75 Marks

**Answer ALL Questions**

**Section – A (1x10=10)**

1. Moisture regain is weight of water in a \_\_\_\_\_
2. Degree of uniformity of yarns is tested by \_\_\_\_\_
3. Fabric strength can be determined by resistance to tensile force, tearing force and \_\_\_\_\_ force.
4. Crease recovery is measured quantitatively in terms of \_\_\_\_\_
5. Where there is a \_\_\_\_\_ occurring, the spread over the surface and wets it.
6. The martindale Abrasion test can be used to assess \_\_\_\_\_
7. \_\_\_\_\_ is a no indicating the mass per unit length or length per unit mass of yarn.
8. A yarn must have sufficient \_\_\_\_\_ to withstand the stresses of preparation and fabric manufacture.
9. Yarns spun from \_\_\_\_\_ fibres are hairy
10. Crimp percentage is a measure of this \_\_\_\_\_ in yarns.

**Section –B (5 x 5 =25)**

11. (a) How do you select samples for testing?(or)  
(b) Write on Shirley moisture meter
12. (a) Write on Caustic Soda swelling (or)  
(b) How do you determine trash in cotton
13. (a) Write on ATIRA direct type twist tester (or)  
(b) Write on the Yarn faults
14. (a) Write on ICI pill box tester (or)  
(b) Write on Shirley air permeability test
15. (a) Write on matching cabinets (or)  
(b) Write on dry cleaning aspects

**Section –C (5 x 8 =40)**

16. (a) Explain testing terminology (or)  
(b) Discuss on conditioning Oven?
17. (a) Describe air flow principle (or)  
(b) Discuss on Caustic soda swelling?
18. (a) Explain beesfey balance? (or)  
(b) Discuss CRT principles?
19. (a) Describe Shirley stiffness tester? (or)  
(b) Write on cover factor?
20. (a) Discuss analysis of anti microbe testing? (or)  
(b) Describe colour fastness for laundering in Textiles?

**SEMESTER – IV  
DIPLOMA – PAPER IV PRACTICAL – II  
HOME TEXTILES**

1. Designing and constructing home textiles Introduction to home textiles
  - ★ Bed Linens
  - ★ Table linens
  - ★ Curtains & Draperies
2. Collection of different types of layout
  - a. living room
  - b. Kitchen
  - c. Dinning room
  - d. Bed room
  - e. Study room
3. Preparation of samples for hangings / mats
  - a. Wall hangings
  - b. Door hangings
  - c. Door mats

**DIPLOMA PAPER III – HOME TEXTILE**

**TIME : 3 HOURS**

**MAX MARKS : 75**

**SECTION – A (10 x 1 = 10 Marks)**

**Answer all the Questions.**

1. \_\_\_\_\_ Material is suitable for Bed linens.
2. \_\_\_\_\_ colours are the best one for table linen.
3. Curtains used to decorate \_\_\_\_\_
4. Draperies used to decorate \_\_\_\_\_
5. \_\_\_\_\_ & \_\_\_\_\_ come under home textiles.
6. \_\_\_\_\_ material are mostly used for decoration.
7. \_\_\_\_\_ are well hangings
8. \_\_\_\_\_ material are used for Door mats
9. \_\_\_\_\_ colours are mostly used in bed rooms.  
\_\_\_\_\_ designs are best suitable for living room.

**SECTION B – ( 5 x 5 = 25 marks)**

11. (a) Write an introduction for home textiles. (or)  
(b) Write the scope of Home textiles.
12. (a) Differentiate Home textiles and apparels. (or)

- (b) Explain the material used for home textiles
13. (a) Write about designs used in home textiles. (or)  
(b) Explain tray cloths and tea – poy.
14. (a) Explain colour suitable for home textiles (or)  
(b) Illustrate different styles of hanging curtains
15. (a) Explain the living room decoration (or)  
(b) Write about study room decorations

**SECTION C – (5 x 8 = 40 marks)**

16. (a) Explain importance of Home textiles (or)  
(b) Explain the factors which affect selection of Home textiles
17. (a) Enumerate the draping factors of home textiles. (or)  
(b) Enumerate the factors to be considered while selecting screens and upholstery
18. (a) explain the factors to be considered while selecting and hanging wall hanging. (or)  
(b) Discuss the importance of table linens.
19. (a) Describe the different types of curtains & their uses. (or)  
(b) Explain the role of colour in interior decoration
20. (a) Draw a lay out for kitchen (or)  
(b) Draw the layout for tinning room.