**Department of Home Science**

Kurukshetra University Kurukshetra

Curriculum for M.Sc. Home Science (Clothing Textiles and Fashion Designing) Under CBCS

Scheme of Examination w.e.f. 2017-18

**Semester-3**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Paper Code | Title of Paper | Type of Paper | Hours/Week | Credits | Marks  (Ext+Int) | Total |
| CTFD-301 | Dyeing in Textiles | Core | 4 | 4 | 80+20 | 100 |
| CTFD-302 | Entrepreneurship Management | Core | 4 | 4 | 80+20 | 100 |
| CTFD-303 | Research Methods, Statistics and Computer Applications | Core | 4 | 4 | 80+20 | 100 |
| CTFD-304 | Social and Psychological Aspect Of Clothing | Elective | 4 | 4 | 80+20 | 100 |
| CTFD-305 | Consumer Behaviour – Textiles and Apparel |  |  |
| CTFD-306 | Communication and Development |  |  |
| CTFD-307 | Textile Heritage of India | Open**\*** elective | 2 | 2 | 40+10 | 50 |
| CTFD-308 | Seminar | core | 1 | 1 | 25 | 25 |
| CTFD-309 | Practical- Dyeing in Textiles | Core | 8 | 4 | 80+20 | 100 |
| CTFD-310 | Practical- Draping, Grading and Advance Apparel Construction | Core | 8 | 4 | 80+20 | 100 |
| Total |  |  |  | 27 |  | 675 |

\*will be offered to the students within faculty.

**Semester-4**

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| --- | --- | --- | --- | --- | --- | --- |
| Paper Code | Title of Paper | Type of Paper | Hours/Week | Credits | Marks  (Ext+Int) | Total |
| CTFD-401 | Printing in Textiles | Core | 4 | 4 | 80+20 | 100 |
| CTFD-402 | Garment Production Technology | Core | 4 | 4 | 80+20 | 100 |
| CTFD-403 | Textile Industry in India | Core | 4 | 4 | 80+20 | 100 |
| CTFD-404 | \*Dissertation | Elective | 4 | 4 | 80+20 | 100 |
| CTFD-405 | Textile Ecology |
| CTFD-406 | Technical Textiles |
| CTFD-407 | Practical- Printing in Textiles | Core | 8 | 4 | 60+20+20\*\* | 100 |
| CTFD-408 | Practical- Computer  Ai ded Designing | Core | 8 | 4 | 80+20 | 100 |
| Total |  |  |  | 24 |  | 600 |

\*Dissertation in M. Sc –IV, subject to the condition that the student has obtained 70% or more marks after IInd Semester (M.Sc. Ist year).

\*\* Viva-voice of the training of 30 days in printing unit and its report.

**Total Credit s =102**

**Total Marks =2550**

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Core**

**Paper-CTFD-301**

**Dyeing In Textiles**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two questions from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| --- |
| **Objectives:**   * To impart the knowledge about preparation of fabric for dyeing. * To understand the theory of dyeing in relation to various classes of dyes. * To familiarize with various dyes and related properties. * To acquaint the students with concept of dyeing at commercial level.   **Learning outcomes**   * The students will gain knowledge and understanding of various dyes, their properties and their applications at cottage and commercial level. |

**UNIT – I**

1. Preparation of fabric for dyeing:
2. Scouring
3. Bleaching
4. Desizing
5. Reagents used and their application
6. Specific preparatory steps for cotton, wool, silk and man-made fibres.

**UNIT – II**

1. Dyes:
2. Classification, definition, components.
3. Color and chemical constitution of dyes.
4. Dyeing with different dyes:
5. Direct, reactive, vat, sulphur, azo (for cellulosic).
6. Acid, metal complex, chromeomordant (for proteins).

c) Basic, disperse (for man-made).

6. Dyeing auxiliaries and their practices:

**UNIT- III**

7. Dyeing with:

a) Natural dyes

b) Difference between dyes and pigments and uses of pigments

c) Dyeing of blends.

8. Dyeing machines and equipments for fiber, yarn and fabric at cottage and industrial level.

9. Industrial dyeing practices.

**UNIT-IV**

10. Textile design through dyeing

a) Tie and Dye

b) Batik

c) Level & Cross dyeing

11. Dyeing defects and remedies.

12. Advances in dyes& dyeing technology

**REFERENCESL:**

1. Shenai (1987), Chemistry of Dyes and Principles of Dyeing Sevak Prakashan,

Mumbai.

1. H. A. Lubs, Robert E. The Chemistry of Synthetic Dyes and pigments, Krieger

Publishing Company, New York.

1. V. A. Shenai (1999), Azo Dyes – Facts and Figures – Sevak Prakashan,

Mumbai.

4. R. S. Prayag, Technology Textile Printing – Noyes Data Corporation.

5. V.A. Shenai (1977), Technology of Printing – Technology of Textile

Processing, Vol. IV, Sevak Publication.

1. M.L. Gulrajani and Deepti Gupta (1990), Natural dyes and their Application to

Textiles”, ed. I.T.I. Delhi Publications.

1. John and Margarot Cannow (1994), Dye Plants and Dyeing, The Herbert

Press (UK).

8. ASTM and ISI Standards.

9. K. Venkatrama (1970), Chemistry of Synthetic Dyes, Part I and II

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Core**

**Paper-CTFD-302**

**Entrepreneurship Management**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two questions from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives:**   * To promote entrepreneurship skills among the students. * To acquaint the students with concept of business environment. * To understand the process and procedure of setting up an enterprise. * To develop management skill for entrepreneurship development.   **Learning outcomes**   * The students will gain technical knowledge and information related to entrepreneurship management and development. |

**UNIT – I**

1. Entrepreneurship:
2. Definition and characteristics
3. Employment promotion
4. Factors affecting entrepreneurs role
5. Barriers- Environmental, Physical and Psychological barriers
6. Business environment for the entrepreneur, Government of India’s policy towards promotion of entrepreneurship, reservations and sanctions for small scale sector.

**UNIT – II**

1. Agencies for development of entrepreneurship:
2. Role of SSI, procedure and formalities for setting up SSI
3. Role of MIDC in Industrial development
4. Role of NSIC – supply of machinery and equipments.
5. Voluntary organizations
6. Bank funding and loan

**UNIT – III**

6. Personal effectiveness:

a) Effective communication skills

b) Achievement motivation

c) Goal orientation

d) Creativity

e) Assert assertiveness

f) Quick response.

7. Technical communication

a) Importance of Business communication, Principles, Procedures

b) Formulation of project proposal and Feasibility of report.

8. Management techniques:

a) Planning

b) Organizing

c) Controlling and review.

**UNIT – IV**

9. Establishing an enterprise:

a) Problems, information, source / schemes of assistance

b) Product management

c) Purchase techniques

d) Costing

e) Marketing management, sales promotion

10. Financial management:

a) Budget estimate

b) Working capital management

c) Personal management

d) Calculating risk

e) Labour law application.

**REFERENCES:**

1. Kanitkar, A. (1995) Grassroots, Entrepreneurship; Entrepreneurs and Micro –

Enterprises in Rural India, New Age International, New Delhi.

1. S.K.G. – Sundaram: Entrepreneurship: A Hand Book for Beginners, S.N.D.T.

Women’s University, Mumbai.

1. G. R. Jain and Debnuni Gupta, New Initiatives in Entrepreneurship Education

and Training, ed.

1. W. Harrell (1995) For Entrepreneurs Only, New Jersey, Career.
2. Sarabhai Vikram (1974): Management for Development, Vikas Publishing House Pvt. Ltd.
3. Michael Armotrong (1986): A Handbook of Management Techniques, Kogar Page Limited.
4. K. Sadgrove (1997), the complete Guide to Business Risk Management, Jaice Publishing House, Mumbai.
5. Colin Melver : Case Studies in Marketing, Advertising and Public Relations, Heinemann, London.

**M.Sc. (Clothing Textiles and Fashion Designing) Under CBCS**

**Semester –III**

**Core**

**Paper -CTFD-303**

**Research Methods, Statistics and Computer Applications**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**Note:**

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* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one question from each unit.

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| **Objectives:**   * To understand the significance of statistics and research methodology in Home science research. * To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design. * To apply statistical techniques to research data for analyzing and interpreting data meaningfully   **Learning Outcomes:**   * This course will enable the students to understand the different research methods and their implication to different kind of research. * Provide a deeper knowledge about the statistical skills to interpret the data and get the research outcomes. * Equip the students about the role of computer softwares in research and statistical analysis of data. |

**Note: students should be given hands on experiences to use appropriate software package for selected statistical analyses**

**UNIT-I**

1. **Role of Statistics and research in Home Science discipline:**

Objective of research: Explanation, Control and Prediction

1. **Nature and types of Research**: Historical, Descriptive, Social Research, Experimental, Field studies, Case study.
2. **Definition and Identification of a Research Problem**:

- Selection of research problems

- Justification

- Hypothesis

**4.** C**oncept and types of variable** (dependent, independent, random, discrete, continuous,

qualitative and quantitative.

**UNIT-II**

1. **Sampling:** Meaning, importance and types:

Random (simple, systemic, stratified, cluster, two stages and multi stage)

Non-random (incidental, purposive, quota, snow ball).

1. **Data gathering Instruments**: Interview, Observation, Questionnaire, Rating scale, Reliability and validity of measuring instruments.
2. **Analysis of data and research report**

**UNIT-III**

1. **Statistics:** Meaning, frequency, frequency distribution and its type.
2. Parametric and Non parametric test.
3. Normal distribution
4. **Measure of central tendency:** Mean, medium, mode.
5. **Measure of dispersion:** Range, mean deviation, standard deviation, skewnes and kurtosis.

**UNIT-IV**

1. **Chi** – square test
2. **T-test:** Single mean, independent mean, paired mean.
3. Correlation and coefficient of correlation
4. **Analysis of variance :** One way and two way classification
5. Software related to Home Science

**References:**

1. S.C. Gupta & V.K. Kapoor: Fundamentals of Mathematical Statistics

2. S.C. Gupta: Fundamentals of statistics

3. G. Udny Yule, N.M.G. Kendall: An Introduction to the theory of Statistics

4. Croxton, F.C. and Cowden, D. J. Applied General Statistics, Prentics hall Inc. 1955

5. Garrett. H. Statistical in Psychology and Education. Oxford book Co.1960.

6. R.P. Hooda: Introduction to statistics. The MacMillon Co.

7. Scotharman, W. A. Textbook of Statistics, (Revised edition) 1973.

8. Kerlinge, Foundations of Behavioral Research

9. Sneedecer G. W. Statistical Methods. Applied Pacific Private Ltd., 1961.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Elective**

**Paper-CTFD-304**

**Social and Psychological Aspects of Clothing**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives**   * To impart understanding of different social and psychological aspects of society * To study various theories of clothing, behaviour, choices and effect of clothing on individual   **Learning Outcome**   * The students will gain knowledge regarding physical and mental health and effect of clothing on personality development |

**UNIT – I**

1. Origin of Clothing
2. Theories of clothing – theory of modesty, immodesty, protection, adornment, combined

need theory, other theories in fashion.

3. Modern philosophy of clothes.

**UNIT – II**

4**.** Relation between clothing and other disciplines.

a) Clothing and first impressions

b) Clothing and Physical Health

c) Clothing and Mental Health

5. Clothing and communication.

**UNIT – III**

6. Relation between clothing and the wearer

a) Personality and self concept.

b) Motivation in clothing choices. Individual values, interests and attitudes related to

clothing.

7. Clothing values, ,clothing choices and their effect on clothing of the individual.

**UNIT – IV**

8. Clothing and Society:

a) Clothing and social behavior

b) Clothing influenced by religion and culture. Clothes and conformity

c) Clothes and occupation

d) Clothing and Uniforms .

9. Clothes and colours, Psychological impact of colours.

**REFERENCES:**

1. Avis, M. Dry (1961): The Psychology of Jung, Methuen & Co., London.

2. Horn, Marilyu J. (1968): The Second Skin, Houghton Miffin Co., USA.

3. Flugel, J.C. (1950): The psycho – analytical study of the family, The Hograth

Press & the Institute of Psycho Analysis, London.

4. Richard Wollhein (1985): Frend, Fontana Press, London.

5. Vincent Brome (1978): Jung, Granada Publishing, London, Toronto Sydney,

New York.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Elective**

**Paper-CTFD-305**

**CONSUMER BEHAVIOR - TEXTILES & APPAREL**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives**   * To provide the indepth knowledge of consumer behavior, consumer protection measures and give them knowledge about retailing in fashion   **Learning Outcome**   * The students will gain knowledge regarding consumer behavior, consumer protection measures and retailing in fashion. |

**UNIT I**

1. Introduction & Overview; The Consumer perspective and viewpoints.
2. Understanding the consumer; Environmental Influence; Individual Differences.

**UNIT II**

1. Consumer Resources: Involvement and Motivation Knowledge, Attitudes.
2. Individual difference in behavior; Psychological Processes.

**UNIT III**

1. Consumer Decision Processes and Behavior, Consumer Analysis
2. Marketing Strategy: Retailing, Consumer Trends, Market Segmentation

**UNIT IV**

1. Diffusion of innovation.
2. Counterfeit textiles and consumer protection measures.
3. Global Consumer Markets.

**REFERNCES**

1. Cranz RLM. 1972. Clothing Concepts. Collier Mcmillan.
2. Flugel JC. 1950. The Psychology of Clothes. Prentice International.
3. Fringes GS. Fashion from Concept to Consumer. Prentice International.
4. Mary Kafgen & Phyllis 1971. Individuality in Clothing Selection & Personal Appearance. The Macmillian Co.
5. Ryan.M.S. 1966. Clothing - A Study in Human Behaviour. Winston.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Elective**

**Paper-CTFD-306**

**Communication and Development**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives**   * + To develop an understanding regarding the communication process.   + To develop an understanding regarding various types of media and their role in Home Science   **Learning Outcome**   * Students will understandvarious types of media and their role in the communication process |

**Unit I**

1. Introduction to communication
2. Origin, Concept, definition, nature of communication
3. Models of communication, Levels of communication
4. Effective communication- Frame of reference, perception, fidelity , communication

gap, time lag, empathy, homophily, hetrophily, Functions of communication

**Unit II**

1. Communication media and Technology
2. Classification of media.
3. Selection of appropriate media
4. Production and use of selected media in Home Science
5. Writing scripts for radio talk, television talk, puppet play, street play
6. Writing for newspapers, magazine

**Unit III**

1. Developmental communication
2. Problems in Development and grass root participation (need and participation)
3. Development communication strategies for grass root mobilization
4. Importance of leadership in developmental communication.
5. Understanding the role of traditional and modern media in developmental communication
6. Participatory approach in developmental communication

**Unit -IV**

1. Communication process
2. Elements of communication.
3. Principle of effective communication
4. Channels of communication
5. Problems of communication (related to the communicator, message receiver and other factors)

**REFERENCES:**

1. Benjamin James : Communication Concepts and Contexts, 1986
2. Berlo, D.K.: The Process of Communicating –An Introduction to Theory and Practical,1960,

New York, Henry Holt and Company

1. Chopra,K., Kaukodi, G.K., & Murty, M.N.: Participatory Development, 1990. Sagar

Publication

1. Dhama, O.P. & Bhatnagar, O.P. : Education and Communication for Development, 1987
2. Dhama, O.P. & Bhatnagar, O.P. : Communication for Development, 1991
3. Kumar Keval J.: Mass Communication in India: A Comprehensive and Critical Look at the

Mass Media in India, 1987

1. Ray, G.L., Extension Communication and management, 1999, Nays Prakashan, Calcutta
2. Tiwari, LP : Communication, Technology and Development, 1987
3. Indian Ministry of Information & Broad Casting : Mass Media in India, 1985

**M. Sc. (Clothing Textiles and Fashion Designing) Under CBCS**

**Semester -III**

**Open Elective**

**Paper-CTFD-307**

**Textile Heritage of India**

Total Marks: 50

External: 40

Internal: 10

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one question from each unit.

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| **Objectives**   * To provide the importance and knowledge about the traditional textiles of India   **Learning Outcome**   * Students will become well acquainted with textile heritage of India |

**Unit – I**

1. Study of Historical textiles with special emphasis on traditional carpets, rugs and Durries of India
2. Study of regional costumes of India (Men/Women) Punjab, Himachal, Kashmir, U.P,

M.P., Bengal, Tamilnadu, Rajasthan, Gujarat, and Maharashtra

**Unit – II**

1. Woven Textile**-**Study of woven textiles with reference to construction techniques, colour and motif
2. Jamdani of Bengal
3. Baluchari of Bengal
4. Brocade of Varanasi
5. Paithani of Maharasthra
6. Tanchoi of Gujrat
7. Munga Silk of Assam
8. Tassar of Bihar
9. Chanderi of Madhya Pradesh
10. Kota Doria of Rajasthan
11. Shawls of Kashmir

**Unit – III**

1. Indian Embroidery **–**Study of Indian Embroidered textiles with special reference to stitches, colours and motifs
2. Kashida of Kashmir
3. Phulkari of Punjab
4. Chamba Rumal of Himachal
5. Chikankari of Uttar Pradesh
6. Sindhi Embroidery of Kutch
7. Kantha of Bengal
8. Kasuti of Karnataka
9. Appliqué work of Orissa
10. Metal wire and leather embroidery

**Unit – IV**

1. Printed and Painted Textiles**-**Study of printed and painted textiles in reference to historical significance, styles, colour and motif
2. Fabric resist dyeing – Bandhani of Rajasthan
3. Yarn resist dyeing – Gujarat, Orissa and Andhra Pradesh
4. Printed textiles – Sanganer and Bagru
5. Painted textiles – Kalamkari and Madhubani

**REFERENCES:**

1. Naik, Shailja D., Traditional embroideries of India, APH Publishing Corp. New Delhi.
2. Alkazi, Roshen., Ancient Indian Costume, National Book Trust, New Delhi.2003
3. Bhatnagar, Parul., Traditional Indian Costumes and Textiles, Abhishek Publications, Jaipur
4. Naik., Traditional Embroideries of India, APH Publication Corp, New Delhi.
5. Das, Shukla., 1992, Fabric Art –Heritage of India, Abhinav Publications, New Delhi
6. Indian Carpets, Thames & Hudson, London
7. Dhamija, Jasleen. & Jain, Jyotiindra., Handwoven Fabrics of India, Mapin Publishing Pvt. Ltd. Ahmedabad.
8. Dar, S.N., Costumes of India and Pakistan, Taraporevala Publishing Industries Pvt. Ltd, Mumbai.1997
9. Jennifer, Harris., 5000 years of Textiles, British Museum Press, London.2005
10. Harris J. (Ed.). 1993. Five Thousand Years of Textiles. British Museum.
11. Leene JE. 1972. Textile Conservation. Butterworths.
12. Williams JC. 1977. Preservation of Paper and Textiles of Historic and
13. Artistic Value. American Chemicals Society

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Core**

**Paper-CTFD-309 (Practical)**

**Dyeing In Textiles**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 4 hrs

1. Preparation of fabric for dyeing:

a) Scouring

b) Bleaching

c) Desizing, at cottage level for different and fiber blends.

2. Dyeing of yarns, fabrics and blends with different classes of dyes.

3. Shade matching.

4. Creating designs on fabrics through various dyeing processes:

a) Tie & Dye

b) Batik

5. Observation of working of dyeing unit for 1 week and submission report.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -III**

**Core**

**Paper-CTFD-310 (Practical)**

**Draping Grading and Advanced Apparel Construction**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 4 hrs

1. Introductions to draping

a) Silhouette of the individual – dress form

b) Elements of fabric woven, knitted.

2. Draping of bodice block and skirt block, their variation and preparation of patterns by

incorporating various design elements.

3. Development of the ladies crotch line garments by drafting/ draping (Shorts, Bermudas, trousers

etc)

4. Introduction to grading

a) Terminology

b) Grading standard size block to different sizes.

c) Children – bodice blocks, sleeve block, skirt and shorts block.

e) Women – Bodice block, Sleeve block, skirt and shorts block.

5. Designing, drafting, pattern making and construction of

a) Skirt-Top

b) Lady's trousers

c) Nighty and gown

d) Evening gown

e) Designer lady's suit.

6. Designing and Construction of various theme based costumes.

7. Presentation of Costumes through Fashion show

8. One month training in any garment construction Unit and Report submission

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Core**

**Paper-CTFD-401**

**Printing in Textiles**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| --- |
| **Objectives:**   * To impart the knowledge about preparation of fabric for printing. * To understand the theory of printing in relation to various classes of dyes. * To familiarize with various printing methods. * To acquaint the students with technical competency in printing.   **Learning Outcomes:**   * The students will gain knowledge and understanding of various printing techniques and their applications at cottage and commercial level. |

**UNIT – I**

1. Printing:
2. Introduction to printing
3. Difference between dyeing and printing.
4. Methods of printing:

Historical development of printing methods – block, stencil, screen roller and rotary screens used at cottage and industrial level.

**UNIT – II**

1. Printing pastes:

a) Thickening agents

b) Preparation of printing pastes for different dyes and different fabrics.

4. Auxiliaries for printing and their suitability to various classes of dyes and different fabrics.

**UNIT – III**

5. Styles of Printing

a) Direct style, resist or resource style, discharge style and raised style.

b) Styles and methods of printing traditionally used in India.

6. Finishing and after treatment of printed goods at cottage and industrial

level.

**UNIT – IV**

7. Special Printing Procedures:

a) Polychromatic dyeing

b) Transfer printing

c) Carpet printing

d) Flock printing.

8. Advances in printing technology

**REFERENCES**

1. A. Shenai (1987), Chemistry of Dyes and Principles of Dyeing Sevak

Prakashan, Mumbai.

2. H. A. Lubs, Robert E. The Chemistry of Synthetic Dyes and pigments,

Krieger Publishing Company, New York.

3. V. A. Shenai (1999), Azo Dyes – Facts and Figures – Sevak Prakashan,

Mumbai.

4. R. S. Prayag, Technology Textile Printing – Noyes Data Corporation.

5. V.A. Shenai (1977), Technology of Printing – Technology of Textile

Processing, Vol. IV, Sevak Publication.

6. M.L. Gulrajani and Deepti Gupta (1990), Natural dyes and their Application

to Textiles”, ed. I.T.I. Delhi Publications.

7. John and Margarot Cannow (1994), Dye Plants and Dyeing, The Herbert

Press (UK).

8. ASTM and ISI Standards.

9. K. Venkatrama (1970), Chemistry of Synthetic Dyes, Part I and II.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Core**

**Paper-CTFD-402**

**Garment Production Technology**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two questions from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one question from each unit.

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| **Objectives:**   * To familiarize with the principles of management and various departments in apparel production technology. * To acquaint the students with garments, their production and advanced methods and technologies.   **Learning outcomes**   * The students will gain knowledge regarding designing, cutting, operations, fusing and sewing technology. * They will get intensive information regarding engineering and quality control. |

**UNIT – I**

1. Introduction to the background and structure of the garment Industry.

a) The organization of garment factory

b) Principles of Management.

2. Various Departments like:

a) Design Departments

b) Marketing Departments

c) Finance Departments

d) Purchasing Departments

e) Production Departments

f) Operations Departments

**UNIT – II**

3. Manufacturing Technology

a) Cutting & Cutting Room

b) Marker planning

c) Efficiency, Method & use of marker plan.

4. Methods of spreading of fabric and requirements of the spreading process.

5. Cutting the fabric – objectives and methods of cutting fabric.

**UNIT – III**

6. Fusing Technology.

7. Sewing Technology

a) Sewing – properties, types

b) Stitch – types

c) Sewing Machines – Feed machines machines Needles.

d) Sewing threads – types of fiber, construction and furnish, thread size, thread package, thread costs, thread properties and seam performance.

8. Sewing problems; Stitch formation, damage along the seam live puckering.

a) Testing for sewability and tailor ability.

b) Use of components and Trims

**UNIT – IV**

9. Alternative Methods of forming materials

a) Fusing

b) Welding and adhesives

c) Moulding

d) Pressing Technology

e) Production Technology

f) Ware Housing

10. Engineering & Quality Control

a) Production Engineering

b) Principles of Quality Control.

**REFERENCES**

1. Gerry Cooklin – Introduction to Clothing Manufacture, Black Well Sciences.

2. Harold Carr & Barbara Lathare – The Technology of Clothing Manufacture –

Blackwell Science.

3. A.J. Chuter – Introduction to Clothing Production Management Blackwell

Science.

4. D. J. Tyles – Materials Management in Clothing production – Blackwell

Science.

5. Harold Carr & Barbara Lathan (1992): Fashion Design and Product

Development – Blackwell Science.

6. Mike Easey – Fashion Marketing. Blackwell Science.

7. Stylios, G. (1991): Textiles objective Measurement and Automation in Garment

Manufacture, Ellis Horword Ltd., New York, London, Singapore

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Core**

**Paper-CTFD-403**

**Textile Industry in India**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives:**   * To impart the knowledge regarding the policies and regulatory mechanisms of Indian Textile Industry.   **Learning outcomes**   * The students will gain knowledge regarding present scenario and problems and prospects, the industry is facing |

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**Unit - I**

1. Importance of textile and clothing industry in the Indian economy in terms of domestic consumption, employment and per- capita income, gross national product and international trade.
2. National textile policy 1986, and latest policy - changes in focus over the years in terms of objective, function ability, regulatory mechanism and futuristic trends.

**Unit - II**

1. Status of textile and clothing Industry over a decade - in relation to production and consumptions pattern, locale, employment potential, R & D,
2. Problems and prospects, research associations & institutes, cotton, wool, silk, jute, rayon and synthetic industry, Handloom industry, readymade Garment industry, hosiery industry.

**Unit - III**

1. Status of textile & apparel industry in global scenario Gatt/WTO
2. ISO 9000-2000 series and ISO 14000 series SWOT analysis

**Unit – IV**

7. Export and Import policies of textiles & apparels Problems in export and import of textiles.

8. Trends in Indian exports, export infrastructural facilities & incentives.

**RFERENCES**

1. Mishra and puri, Indian economy , Himalaya pub. house
2. National Textile Policy 1986, 2000
3. Journals-Clothesline, business India, Business Today
4. Newspaper- Economic times, financial express& apparel online
5. Industry published Journals/Newsletters e.g. SASMIRA, WWEPC, HHEC, etc.
6. Economic surveys, government of India

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Elective**

**Paper-CTFD-405**

**Textile Ecology**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives**   * To develop awareness about types of pollution from textiles processing Units, their effect and understand the health hazards of textile workers and their remedial measures.   **Learning Outcome**   * The students will gain information about types of pollution from textiles processing Units, their effect and understand the health hazards of textile workers and their remedial measures. |

**UNIT I**

1. Industrialization, eco-balance and textile ecology. Air, noise and water pollution by mechanical and chemical textile processing and their effect.
2. Treatment and disposal of textile effluents. Treatment processes of sewage.

**UNIT II**

1. Health hazards of textile workers working in various textile units (manufacturing units,printing units, dyeing units and weaving units) and their remedial measures.
2. Banned dyes and auxiliaries: Introduction, details, limitations and after effects.

**UNIT III**

1. Eco-friendly production and processing to various textiles.
2. Organic and naturally colored cotton, natural dyes and detergents: manufacturing, properties and applications.

**UNIT IV**

1. Indian and International environmental legislations.
2. (a) Eco labeling

(b) management and auditing.

**REFERENCES:**

1. Mark KH, Woodlings & Atlas SM. 1971. Chemical after Treatment of Textiles. John Wiley & Sons.
2. Skinkle JH. 1972. Textile Testing. D.B. Taraporewala.88

**M. Sc. (Clothing Textiles and Fashion Designing) Under CBCS**

**Semester -IV**

**Elective**

**Paper-CTFD-406**

**Technical Textiles**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 3 hrs

**NOTE:**

* Examiner will set nine questions in all
* All the questions will carry equal marks
* Question No.-1 will be compulsory consisting of 5-10 short type questions(having no internal choice) and spread over the entire syllabus
* Eight questions, two question from each unit (I, II, III & IV) will be set.
* The candidates are required to attempt five questions in all. Question No -1 will be compulsory, remaining four questions will be attempted by selecting one questions from each unit.

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| **Objectives**   * To acquaint the students with the techniques of development in nano fiber and micro fibres and study the recent development in the field of technical textiles.   **Learning Outcome**   * The students will get recent information about techniques of development in nano fiber and micro fibres in the field of technical textiles. |

**UNIT I**

1. Developments in Nano-fibre and microfiber non-wovens: Introduction, processing, specifications and applications
2. Importance and classification of technical textiles- Introduction, manufacturing types of fibers, materials and applications.

**UNIT II**

1. Medical Textiles: Importance, manufacturing and applications.
2. Special textiles for industrial applications.
3. Automotive textiles and Industrial textiles.

**UNIT III**

1. Agro textiles, Geo-Textiles: Importance manufacturing and their applications
2. Phase Change Materials; Shape Memory Materials; Chromic Materials.

**UNIT IV**

1. Conductive Materials and other Functional Materials- characteristics and its Applications.
2. Smart textiles – Introduction, manufacturing, applications, factors affecting the selection and uses.

**REFERENCES**

1. Allison Mathews 1994. Medical and Hygiene Textile Production. Intermediate Technology Publ.
2. Cookling Gerry 1997. Garment Technology for Fashion Designers. Blackwell Science.
3. Padmanabhan AR. 1988. A Practical Guide to Textile Testing. SITRA, Coimbatore. Prentice Hall.
4. Skinkle JH. 1972. Textile Testing. D.B. Taraporewala.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Core**

**Paper-CTFD-407 (Practical)**

**Printing in Textiles**

Total Marks: 100

External: 60

Internal: 20

Training: 20

Duration of Exam: 4 hrs

1. Developing designs for block, stencil, screen printing and hand painting.

a) Sources of design

b) Sequel arrangements of unit

c) Center line design

d) Border design

e) Over-all design (Sheet work).

2. Printing – preparation of screens and stencils for printing.

3. Making samples with stencil, block, screen printings and hand painting on different available fabric with different dye classes.

4. Make one article each of block, stencil, screen and hand painting.

5.Display/Exhibition of all articles prepared during course.

**M. Sc. (Clothing Textiles and Fashion Designing) Under** **CBCS**

**Semester -IV**

**Core**

**Paper-CTFD-408 (Practical)**

**Computer Aided Designing**

Total Marks: 100

External: 80

Internal: 20

Duration of Exam: 4 hrs

1. Basic Awareness of Coral Draw, Adobe Photoshop and Adobe Illustrator.
2. Creation of pattern related to textile designing using different types of yarn, weaves and knits. Making designs and its graph. Specification of picks and ends, yarn count for meaning on the computer.

- Dobby, jacquard pile, carpet and knits. The innumerable styles of weaves, plain as well as design weave. Making punch cards from the graphs. Stimulation of various yarns like novelty, fancy and weaving them on the monitor to get different fabrics with specified end use. Colours and setting designs in different repeats and colour combination. Fitting the repeat according to the method and application of printing – roller, screen, block etc. Scanning the already printed fabric, reducing the color manually or by automatic color reduction.

3. **Module I :**

Use of sketching software for development circles. Squares and triangle to

study elements of design. Drawing basic silhouettes of design. Drawing basic

silhouettes and proportions of the fashion figures construct styles and

designs. Conversion of vector based images in to a bitmap based and their

application using various effects and filters to create different designs.

**Module II:**

Introduction and use of scanning systems and its software’s. Learning of

draping software. Application and change of texture print and colour in the

scanned photograph. Creating color ways, new designs and textures by using

available effects like embossing, Blurring, Transparent, Translucent and other

such looks on the garments.

**Module III:**

Introduction of pattern making software, knowledge of hardware and pattern

making programme. Use of computer for pattern making, grading and

marking. Making of specific sheets and drafting out patterns for different age

groups. Putting darts, seam allowances and making the layout. Plotting and

printing the pattern.