Syllabus and Course Scheme Academic year 2023-24



UNIVERSITY OF KOTA MBS Marg, Swami Vivekanand Nagar, Kota - 324 005, Rajasthan, India Website: uok.ac.in

TEXTILE DYEING AND PRINTING B.A/ B.Sc. /B.Com. Part -II- 2023-24

Scheme			Sc	ience	Arts	/ Commerce	
Pt-II	Nomenclature	Dur.	Max./Min. Marks		Max./Min. Marks		No. of Periods
Paper-I	Fabric Construction	3 hrs	75	27	65	24	3
Paper-II	Printing	3 hrs	75	27	65	24	3
Practical		4 hrs	75	27	70	26	4/ Batch

Paper -1 Fabric construction

Max. Marks: (Sc)-75/(Arts/Comm.)-65

Note: The question paper will contain three sections as under-

- Section-A: one compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. 10 (Sc.)/05 (Arts/Comm.)
- Section-B: 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. 35 (Sc.)/35 (Arts/Comm.)
- Section-C: 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type answer in about 500 words, 2 questions to be attempted. 30 (Sc.)/25 (Arts/Comm.)
- Unit 1 3 a. Various methods of fabric construction
 - b. Cost estimation of Fabric per yard/meter
 - i. Reed count, Healed count
 - ii. Warp and weft calculations
 - iii. Cloth calculations
- Unit 2 1. Shedding devices
 - Defination

Duration: 3 hrs

- Scope of tappet sheddin
 - 2. Dobby :
 - Definition of Dobby
 - Scope of Dobby
 - Types of Dobby

Unit 3: 1. Jacquard :

- Definition of Jacquard
- Scope of Jacquard
- Types of Jacquard
- 2. Introduction to shuttle less loom

-Rapier Loom

Airjet Loom

Waterjet Loom

Unit 4 Selvedges.

- Plain selvedge.
- Tape selvedge.
- Split selvedge.
- Fused selvedge.
- Leno selvedge.
- Tucked selvedge.

Unit 5 Study of woven textiles according to colour, texture, motifs & techniques

- a. Jamdani b. Baluchar c. Paithani Sarees
- d. Maheshwari Saree e. Chanderi Saree f. Banarasi Brocade

Reference Books

Duration: 3 hrs

Weaving Technology-M.M.Kulkarni, Virinda Publication, Jalgon Grociki, Z.J.; Watsons Textile Design and Colour, London, Newness Butter Worth

Paper -- II - Printing

Max. Marks: (Sc)-75/(Arts/Comm.)-65

Note: The question paper will contain three sections as under-

- Section-A: one compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. 10 (Sc.)/05 (Arts/Comm.)
- Section-B: 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. 35 (Sc.)/35 (Arts/Comm.)
- Section-C: 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type answer in about 500 words, 2 questions to be attempted. 30 (Sc.)/25 (Arts/Comm.)
- UNIT 1 Introduction to Printing difference between dyeing and printing. Historical development of printing methods-block, stencil, screen, roller and rotary screens used at cottage and industrial level
- UNIT 2 Definition of printing Pretreatments required ingredients for printing (Thickening agent, Mordents, oxidizing and reducing agent etc.) Preparation of printing paste recipes
- UNIT 3 Styles of printing direct style, dyed, resist style, discharge style and raised style Special printing procedures- Polychromatic dyeing, Transfer printing, Carpet printing, Flock printing Finishing and after treatment of printed goods at cottage and industrial level.

UNITT 4 Organization of the textile industry: Centralized and Decentralized sectors, handlooms, co-operativ and export trends, multinational companies.

- UNIT 5 Study of Traditional Textiles
 - a. Sanganeri
 - b. Bagru
 - c. Kalamkari
 - d. Ajarakh
 - e. Patola

- f. Ikat
- g. Pochampalli
- h. Bandhani

Practical

MIin. marks: 27/26

Max.marks: 75/70

Duration : 4hrs.

- 1. Constructing fabrics by other methods like Knitting, Crotchet, Macrame
- 2. Introduction to computer aided designing for weaving & printing software.
- 3. Paper work on: 4 (four) sketches on geometrical, stylized, figurative, abstract, traditional- (4 motifs)
- 4. Sketches on plain, vertical, horizontal and half step repeat.
- 5. Paper work and practical work for stencil size (one meter cloth) with pigment or fabric color.
- 6. Printing with blocks and screen on cotton, product development
- 7. Weaving Muffler (6"x 60") or Assan 12"x12"
- 8. Field and industrial visit
- 9. Development of an innovative product.
- 10. Entereprenurship activity
- 11. Community engagement activity

References

- 1. www.rajasthantextiles.com
- 2. शर्मिला गुर्जर "वस्त्र की रंगाई एवं छपाई"
- 3. Block Printing and Dyeing of Bagru, Rajasthan/Bijoy Chandra Mohanty and Jagadish Prasad Mohanty. Ahmedabad, Calico Museum of Textiles, 1983, 108 p., plates, map, (Study of Contemporary Textile Crafts of India).
- 4. R.S Prayag, Textile Printing
- 5. V.A.Shenai, Technology of Printing

TEXTILE DYEING AND PRINTING B.A/ B.Sc. /B.Com. Part -III -2023-24

Scheme

Min pass Marks

Max Marks

Paper-1 (3pd/week) Paper- 2 (3pd/week)

Duration: 3 Hrs.

Theory 54/47 3 hrs. Duration 3 hrs duration Practical: 27/26

Theory: 150/130 75-Sc./65-(Arts/Commerce) 75-Sc./65-(Arts/Commerce) Practical: 75/70

Paper -I Finishing Auxiliaries Entrepreneurship Development

Max. Marks 75-Sc./65-(Arts/Commerce)

Note: The question paper will contain three sections as under-

- Section-A: one compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. 10 (Sc.)/05 (Arts/Comm.)
- Section-B: 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. 35 (Sc.)/35 (Arts/Comm.)
- Section-C: 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type answer in about 500 words, 2 questions to be attempted. 30 (Sc.)/25 (Arts/Comm.)
- a. Ingredients used in finishing filling materials, adhesives, antiseptics, Unit -1 Optical brightening agents, oils, fat and waxes, softeners.
 - b. Properties and chemistry of soaps and detergents
- Unit 2 a. Starches wheat starch, rice starch, Guar gum, Tapioca starch, Soluble starches – Properties and use b. Use and importance of resins (natural and synthetic)

Unit – 3 (a) water and water pollution

(b) Effluent treatment in Cotton Industry (Primary, secondary and tertiary level)

- Unit -4 1) Entrepreneurship Concept/Meaning, Need, qualities of an entrepreneur Entrepreneurial Support System District Industry Centres (DICs) **Commercial Banks** State Financial Corporations
- Small scale industry: Definition; Characteristics; Need and Unit - 5 rationale: Objectives: Scope; role of SSI in Economic Development. Advantages of SSI. Steps to start in SSI. Impact of Liberalization, Privatization, Globalization on S.S.I.
 - How to start a small scale industry
 - Procedures for registration of small scale industry •
 - List of items reserved for exclusive manufacture in small scale industry •
 - Assessment of demand and supply in potential areas of growth •
 - Understanding business opportunity
 - Considerations in product selection ٠
 - Data collection for setting up small ventures ٠

REFERENCE BOOKS:

- 1. Textile Auxiliaries and Finishing Chemicals- ATIRA Publications.
- 2. Modern techniques of textile Bleaching- Dyeing, and Finishing, SITRA Pub.

- 3. Chemical Processing of Cotton, Polyester Cotton Blends-J.R.Modi and A.R.Grade- 1980, TAI Publications.
- 4. Dyeing of Polyester Blends- M L Gulrajani, 1980, TAI Publications.
- 5. Technology of Textile Processing -Vo.II, Chemistry of Dyes and Principles of Dyeing, V.A. Shenai, 1993, Sevak Publications.
- 6. Philip Kotler Marketing Management
- 7. J. C. Gandhi Marketing Management
- 8. Ramaswamy and control-Marketing Management : Planning, Implementation.
- 9. एस० सी० जैन विपणन प्रबन्ध
- 10. आर० पी० माहेश्वरी व्यावसायिक सन्नियम
- 11. Development of an innovative product.
- 12. 10. Entereprenurship activity
- 13. 11. Community engagement activity

PAPER- II (Finishes and new developments)

Duration: 3 Hrs. Max. Marks 75-Sc./65-(Arts/Commerce) Note: The question paper will contain three sections as under-

- Section-A: one compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. 10 (Sc.)/05 (Arts/Comm.)
- Section-B: 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. 35 (Sc.)/35 (Arts/Comm.)
- Section-C: 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type answer in about 500 words, 2 questions to be attempted. 30 (Sc.)/25 (Arts/Comm.)
- Unit -1 a. Objectives and functions of finishing and Classification of finishes Physical and chemical, Temporary and permanent
 - b. Preparation of finishing mixture, detailed study of Waterproofing, water repellency, Fire proofing and moth proofing, stiffening, Crease resistance and crease proofing.
- Unit -2 a. Finishing machineries
 - a. Padding Magles 2 bowl mangle 3 bowl mangle, Washing Mangle.
 - b. Calendaring Objects, 5 bowl calendar, 7 bowl calendar, embossing calendar Schriener calendar, Swizzing calendar, Chasing calendar.
 - c. Sanforization principle, objectives and process.
 - d. Texturization
- Unit -3 1) Sustainability in textile processing
 - 2) Indian and International textile Eco Labels, standards, quality control, strategy, information systems.
 - 3) Eco or green design, issues for consumers, retailers & fashion
- Unit-4 New developments in textile
 - a) Geo textile
 - b) Medical textiles
 - c) Protective Clothing

d) Automotive Textile

Unit- 5 a) Fundamentals of Computer and application of CATD (computer aided textile designing)

- Overview of the computer System (Basic components & their functions)
- Overview of Windows
- Overview of Word Processors (MS-Word)
- Overview of Spreadsheet (MS-Excel)
- Overview of Presentation (MS-Power Point)
- Network Basic & Internet
- Scope & importance of CATD.

Reference Books :

- 1. Dyeing and Chemical Technology- of textile Fibres, E.R.Trotman,
- 2. Technology of Textile Processing- Vo. III, V A Shenai, 1975, Sevak Publications.
- 3. Technology of Bleaching and Dyeing of textile fibres-Chakrawarthy, 1972, Coxtown publications.
- 4. Textile Chemistry- Vo.I&II, R H Peters, Elsewhere Publishing Co., New York
- 5. S.V.S Rana, Environmental studies, Rastogi pub., Meerut, 1st ed:, 2004.
- 6. Fundamentals of Computers Graphics & Multimedia, Mukherjee, PHI

Practical

Max. marks : 75 (science)/ 70 (arts/commerce)Min.marks:27(science) /26 (arts/ commerce)Duration: Four-Hrs. (Two Hrs.Per day)

- 1. Power point Presentation
- 2. Photo editing & capturing
- 3. CATD presentation
- 4. Evaluation of textile finishes and auxillaries (blues,dyes,stiffening and wetting agent)
- 5. Water analysis
- 6. Quality control analysis(shrinkage test, colour fastness, dimensional stability)
- 7. Field and industrial visit
- 8. Development of an innovative product.
- 9. Entereprenurship activity
- 10. Community engagement activity