

**Revised Scheme of Examinations for B.Sc. Home Science (IIIrd and IVth Semester) under
(CBCS-LOCF) w.e.f. 2021-22**

Semester-III

Course	Paper Code	Nomenclature	Credits	Contact Hr/week	Exam time (hr)	External Marks	Internal Marks	Total
CC7	HS301-A	Introduction to textile & Clothing Construction	3	3	3	60	15	75
	HS301-B	Laundry Science & Finishing of Fabrics	3	3	3	60	15	75
	HS301-(A+B)	Clothing & Textiles Practical	2	4	3	50	-	50
CC8	HS302-A	Housing and space management	3	3	3	60	15	75
	HS302-B	Interior Design & home décor	3	3	3	60	15	75
	HS302-(A+B)	Home Management Practical	2	4	3	50	-	50
CC9	HS303-A	Early Childhood Education & Children with special needs	3	3	3	60	15	75
	HS303-B	Family transition and population education	4	4	3	80	20	100
	HS303-(A)	Human Development Practical	1	2	3	25	-	25
SEC-1	HS305	Personality Development	2	2	3	40	10	50
Total			26	31				650

Semester-IV

Course	Paper Code	Nomenclature	Credits	Contact Hr/week	Exam time (hr)	External Marks	Internal Marks	Total
CC10	HS401-A	Nutrition in Life Cycle	3	3	3	60	15	75
	HS401-B	Food preservation and Community Nutrition	3	3	3	60	15	75
	HS401-(A+B)	Foods & Nutrition Practical	2	4	3	50	-	50
CC11	HS402-A	Life Span Development-II	3	3	3	60	15	75
	HS402-B	Adulthood; Guidance & Counseling	3	3	3	60	15	75
	HS402-(A+B)	Human Development Practical	2	4	3	50	-	50
CC12	HS403-A	Community Development and Extension Education-I	3	3	3	60	15	75
	HS403-B	Community Development & Extension Education-II	3	3	3	60	15	75
	HS403-C	Computer Applications in Communication & Media Design Practical	2	4	3	50	-	50
SEC-2	HS404	Basics of Physics	2	2	3	40	10	50
Total			26	32				650

Programme Outcomes (POs) for UG courses of Faculty of Life Sciences

1. To develop skills in graduate students to be able to acquire theoretical and practical knowledge in fundamentals of biology in respective disciplines of plants, animals, microbes and environment.
2. To inculcate the ability to critically evaluate problems and apply lateral thinking and analytical skills for professional development.
3. To create awareness on ethical issues, good laboratory practices and biosafety.
4. To develop ability in youth for understanding basic scientific learning and effective communication skills.
5. To prepare youth for careers in teaching, industry, government organizations and self-reliant entrepreneurship.
6. To make students aware of natural resources and environment and its sustainable utilization.
7. To provide learning experience in students that instills deep interest in biological science for the benefit of society.

Programme Specific Outcomes (PSOs) for B.Sc. Home Science

1. **PSO1:** To impart knowledge and facilitate the development of skills and techniques in different areas of Home science (namely Foods, nutrition & dietetics, Human development, Textile and fashion technology and community resource management) required for personal, professional and community advancement.
2. **PSO2:** To inculcate in students values and attitudes that enhance personal and family growth and to sensitize them to various social issues for the development of human society.
3. **PSO3:** To promote in students a scientific temper and competencies in research to enable contribution to the national and international knowledge base in Home science and allied fields.
4. **PSO4:** Consequently, to empower our women students such that they are able to effect positive changes at multiple levels.

B.Sc. (HOME SCIENCE)
SEMESTER – III
CC7: Introduction to Textile and Clothing Construction

Course No.: HS 301-A

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Instructions for the Examiner:

The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the Candidate:

The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes for this course are:

CO1: To acquire knowledge about different types of fibers, yarns and blends.

CO2: To understand the process of fabric manufacture and fabric properties.

CO3: To develop creative skills for fabric construction.

CO4: To gain practical knowledge of Instruments and their application.

UNIT-I

1. **Textile Fibers:** Definition, Classification, Physical and chemical properties of different fibers
 - a) Natural Fibers: Cotton, Linen, Wool and Silk
 - b) Man-made Fibers: Rayon-viscose, Acetate, Polyester, Acrylic, Nylon
2. **Yarns:**
 - Definition, classification
 - Types of yarns: Simple, novelty and textured yarns.
 - Basic principle of yarn making: Mechanical spinning Chemical spinning (wet, dry and melt).
 - Properties of yarns: Yarn numbering systems and twist
3. **Blends:** Types of blends and purpose of blending.

UNIT-II

4. **Fabric Construction:** Methods and Techniques of fabric construction
 - a) From yarns: Weaving, Knitting, Braiding, Crocheting, Lacing, Netting, Knotting.
 - b) From fibers: Felting, Non-woven.
 - c) From solutions: films, foams, paper
 - d) From layering/Composites: double weaving, quilting, bonding, laminating.
5. **Weaving:** Parts and functions of the loom
Basic Weaves: Classification, construction, characteristics, usage and types
6. **Knitting:**
 - a) Classification, construction, characteristics, usage and types warp knits and weft knits
 - b) Comparison of knitting with weaving.
 - c) Comparison between woven and non-woven.
 - d) Non-woven and felts-construction, properties and usage.

References:

1. "A Reader's Digest Step by Step guide- Sewing and Knitting", Reader's Digest (Australia) Pty Ltd.
2. Barker A. F. & Midgley E. "Analysis Woven Fabrics" Abhishek Publications, Chd, India (2007)
3. Dan Tyagi.S , "Fundamentals of Textiles and their Care," Orient Longman Ltd, New Delhi.
4. Corbman, "Textile fiber to Fabric"; MCGraw Hill
5. Murphy W.S. " Textile Weaving & Design" Abhishek Publications, Chandigarh, India(2007).
6. "Textbook of clothing, textiles, laundry" Kalyani publishers, New Delhi.

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 301-A: Introduction to Textile and Clothing Construction

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	1.5	1.5	2	2	3	1.5
CO2	2.5	1.5	2	1.5	3	2	1.5
CO3	2	1.5	2	1.5	2.5	2	2
CO4	2.5	2	2	1.5	3	2	2
Average	2.5	1.6	1.8	1.6	2.6	2.2	1.7

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 301-A: Introduction to Textile and Clothing Construction

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	1.5	2	2.5
CO2	2.5	1.5	2	2
CO3	3	1.5	2	2
CO4	3	1.5	2	2
Average	2.8	1.5	2	2.1

B.Sc. (HOME SCIENCE)
Clothing & Textiles Practical
CC 7: Introduction to Textile and Clothing Construction

Course No.: HS 301-A

MM: 25

Duration of Exam: 3 Hrs

Course Credit:1

Course Outcomes: The outcomes for this course are:

CO1: To gain knowledge about identification of fibers.

CO2: To develop skills for weaving and knitting.

CO3: To enhance knowledge of fabric construction.

Syllabus:

1. Identification of fibers- microscopic test, burning test, chemical test
2. Weaving samples – plain weave, rib weave, basket weave, twill weave, satin weave, sateen weave
3. Knitting samples – garter, stocking, rib, purl, moss, doble rib, double moss.
4. Garment construction –
 - Adaptation of child’s bodice block to any one type from A-line frock, gathered frock, flared frock
 - Drafting of collars (baby, Chinese band, cape, peter pan, flat, flack and raised) and sleeves (puff, flared, leg-o-mutton, raglan, dolman, kimono).
 - Preparation of adult’s bodice block and sleeve block and its adaptation to Blouse
 - Drafting, cutting and stitching of petticoat, salwar , kameez.

References

1. Barker A. F. & Midgley E. “Analysis Woven Fabrics” Abhishek Publications, Chd, India (2007)
2. Dan Tyagi.S , “Fundamentals of Textiles and their Care,” Orient Longman Ltd, New Delhi.
3. Corbman, “Textile fiber to Fabric”; MCGraw Hill
4. Murphy W.S. “Textile Weaving & Design” Abhishek Publications, Chandigarh, India (2007).
5. “Textbook of clothing, textiles, laundry” Kalyani publishers, New Delhi.
6. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.
7. Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 301-A (Practical): Introduction to Textile and Clothing Construction

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	1.5	2	1.5	2	1.5	1.5
CO2	2	1.5	1.5	2	2	1.5	1.5
CO3	2	1.5	1.5	2	2	1.5	1.5
Average	2	1.5	1.2	1.3	2	1.5	1.5

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 301-A(Practical): Introduction to Textile and Clothing Construction

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	1.5	2	2
CO2	3	1.5	2	2
CO3	3	1.5	1.5	2
Average	3	1.5	1.3	2

B.Sc. (HOME SCIENCE)
SEMESTER – III
CC7: Laundry Science and Finishing of Fabrics

Course No.: HS 301-B

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Course Outcomes: The outcomes for this course are:

CO1. To aware the students about the techniques of laundry and washing.

CO2. To know about various laundry auxiliaries and their usage.

CO3. To gain knowledge about different types of finishes.

CO4. To understand the importance of care labels and labeling act.

UNIT- I

1. **Laundry:** Definition & importance of laundry
 - a) Equipment – laundry equipment, drying equipment, storage equipment, finishing equipment.
 - b) Principles, methods, types of washing – sorting, steeping, friction (hand, scrubbing board and brush), suction washing, kneading, squeezing and machine washing.
 - c) Bleaches- oxidizing, reducing, optical bleach and their stability to different fibers.
2. **Stiffening agents:**
 - a) Kinds of stiffening agents – rice, wheat, maize, tapioca, potato and commercial
 - b) starch.
 - c) Starch substitutes
3. **Laundry blues** – soluble and insoluble
 - a) Process of bluing
 - b) Additional reagents – alkaline, acidic, organic solvents and absorbents.
4. **Laundry Supplies-**
 - a) Soaps and detergents: Definition, types and difference between soap and detergent
 - b) Qualities of soaps and its action
5. **Finishing:** Definition & Importance of finishing
 - Classification/types of finishes - mechanical, chemical, preparatory & functional finishes

Unit -2

6. **Dyeing-**
 - Definition of Dyes and pigment.
 - Types of dyes- a) Natural dyes (vegetable, animal, mineral)
 - b) Synthetic dyes (direct, basic, acid, Sulphur, mordant, vat, color or dyes, disperse dyes, reactive, pigment).
 - Methods of dyeing – home dyeing, resist dyeing (batik, tie and dye).
 - Different styles of tying for tie and dye.

7. **Printing –**
 - Definition, types (hand and machine) and Methods of printing
 - Direct – block, roller, duplex, flocking
 - Discharge Printing
 - Resist Printing – stencil, screen (flat, rotary)
 - Indirect Printing – heat transfer, photo
8. **Stains Identification and removal of common stains –**
 - Types – vegetables, animal, fat, dye, mineral stains.
 - Methods of removal of different stains
9. **Dry cleaning & Care of Textiles**
10. **Labeling and labeling Act**

References:

1. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw
2. Hill Book Co., US.
3. Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc.,
4. Florida.
5. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, a. Delhi.
6. Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA.
7. Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
8. 6. Sushma Gupta, Neeru Garg and RenuSaini Test book of clothing and textiles and laundry – Kalyani Pub.
9. 7. Gupta Sushma (2005) TextBook of Clothing Textiles and Laundry, Kalyani Publishers New Delhi.

Mapping of Course Outcomes with Program Outcomes (CO/PO)

Paper No. HS 301-B Laundry Science and Finishing of Fabrics

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	1.5	1.5	2.5	2	2.5	2.5	2
CO2	1.5	1.5	2.5	2	2	2	2
CO3	2	1.5	2	1.5	2	1.5	1.5
CO4	1.5	1	1.5	1	1.5	1.5	1
Average	1.6	1.3	2.1	1.6	2	1.8	1.6

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)

Paper No. HS 301-B Laundry Science and Finishing of Fabrics

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	2
CO2	2.5	1.5	2	2
CO3	2.5	1.5	2	1.5
CO4	2	1.5	1.5	2
Average	2.5	1.6	1.8	1.8

B.Sc. (HOME SCIENCE)
Clothing & Textiles Practical
CC7: Laundry Science and Finishing of Fabrics

Course No.: HS 301-B

MM: 25

Duration of Exam: 3 Hrs

Course Credit:1

Course Outcomes: The course learning outcomes for this course are –

CO1. To gain knowledge about equipment and supplies used for laundry and washing.

CO2. Provide understanding of finishes given to different fabrics.

CO3. To understand the different techniques of dyeing and printing.

CO4. To know about the nature of stains and methods of removing stains.

Syllabus:

1. Demonstration of laundry equipment and laundry reagents
2. Washing, care and storage of textiles:
 - Laundry and finishing of cotton, wool, silk and synthetic fabrics.
3. Making samples of tie and dye with different methods (min 12)
 - Prepare one article of tie and dye.
4. Batik with wax and without wax (one article of each).
5. Printing- block printing, stencil printing, screen printing.
 - Prepare one article from each.
6. Identification of stains and removal of stains from different fabrics (min 12).
7. Free Hand Painting.

References:

1. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co., US.
2. Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
3. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.
4. Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA.
5. Wilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
6. Sushma Gupta, Neeru Garg and Renu Saini Test book of clothing and textiles and laundry – Kalyani Pub.
7. Gupta Sushma (2005) Textbook of Clothing Textiles and Laundry, Kalyani Publishers New Delhi.

Mapping of Course Outcomes with Program Outcomes (CO/PO)

Paper No. HS 301-B (Practical) Laundry Science and Finishing of Fabrics

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2.5	1.5	2	1.5	2	1.5	1.5
CO2	2.5	1.5	2	1.5	2	1.5	1.5
CO3	2	1.5	2	1.5	1.5	1.5	1.5
CO4	2	1.5	2	1.2	1.5	2	2
Average	2.2	1.5	2	1.4	1.7	1.6	1.6

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)

Paper No. HS301 -B (Practical) Laundry Science and Finishing of Fabrics

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1.5	2
CO2	2.5	1.5	2	2
CO3	3	1.5	2	2
CO4	2	1.5	1.5	2
Average	2.6	1.6	1.7	2

B.Sc. (HOME SCIENCE)
SEMESTER – III
CC8: Housing and Space Management

Course No.: HS 302-A

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Instructions for the examiner : The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To learn the relationships that characterize art and design practice.

CO2: To enable the students to explore theories and apply principles of aesthetics and art criticism to theorize their own artwork.

CO3: To encourage experimentation with traditional and contemporary materials, technical processes and methods.

CO4: To impart knowledge and skills for making different floor plans for different income groups.

UNIT-I

1. Concept and importance of housing, housing needs of family, advantage and disadvantage of owned and rented house
2. Choice of site for house and factors affecting site selection
3. Conventional and non- conventional building material for construction of a house
4. Modern methods of house construction and energy saving houses
5. House loan and fund arrangement from banks (Nationalized, Private), LIC, Co-operative societies.

UNIT-II

6. Types of house plan: floor, elevation, structural, perspective and landscape
7. Signs used for reading house plans for LIG, MIG and HIG
8. Space planning for different rooms: living room, dining room, bedroom, kitchen, entrance passage, lobby, toilet, staircase, exteriors etc.
9. Principles of space planning: aspect, orientation, grouping, privacy, roominess, prospect, light, ventilation, flexibility, circulation and economy.

References:

1. Goldstein, H. and Goldstein, V. (1967): Art in Everyday life; New Delhi: Oxford and IBH publishing company. Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
2. Riley & Bayen., (2003), The Elements of Design, Mitchell Beazley.
3. Rutt Anna Hong (1961): Home furnishing, Wiley Eastern Pvt. Ltd.
4. Adler, David., 2004, Metric Handbook planning & Design, Architectural press.
5. Kumar, Sushil, 2008, Building Construction, Standard publisher.

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 302 - A: Housing and Space Management

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2.5	1.5	2	1.5	2	1.5	1.5
CO2	2.5	1.5	2	1.5	2	1.5	1.5
CO3	2	1.5	2	1.5	1.5	1.5	1.5
CO4	2	1.5	2	1.2	1.5	2	2
Average	2.2	1.5	2	1.4	1.7	1.6	1.6

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 302 - A: Housing and Space Management

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	1.5	2
CO2	2.5	1.5	2	2
CO3	3	1.5	2	2
CO4	2	1.5	1.5	2
Average	2.6	1.6	1.7	2

B.Sc. (HOME SCIENCE)
Home Management Practical
CC8: Housing and Space Management

Course No.: HS 302-A

MM: 25

Duration of Exam: 3 Hrs

Course Credit:1

Course Outcomes: The course learning outcomes for this course are –

- CO 1.** To gain knowledge about layout of furniture, interior decoration, use of waste material, decorative pieces .
- CO 2.** To develop understanding about aesthetics.
- CO 3.** To acquire professional and entrepreneurial skills for economic empowerment.

Syllabus:

1. Preparation of house plans for different income groups (one each)
2. Layout of furniture for different rooms/areas.
3. Floor decoration: Alpana and rangoli.
4. Pottery painting and decoration.
5. Creating various art pieces/accessories using various types of materials and techniques like paper cutting, collage, candle making, , papier-mâché, macramé, gift wrapping, greeting cards with decorative envelopes , shopping bags/decorative pouches, accessories for fashion designing including Jewellery making (any 6).
6. Table setting and napkin folding.
7. Flower arrangement for different rooms and occasions.
8. Use of waste materials for making utility and decorative articles.

**Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 302-A Practical: Housing and Space Management**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	1.5	2	1.5	2	1.5	1.5
CO2	2	1.5	1.5	2	2	1.5	1.5
CO3	2	1.5	1.5	2	2	1.5	1.5
Average	2	1.5	1.2	1.3	2	1.5	1.5

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 302-A Practical: Housing and Space Management**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	1.5	2	2
CO2	3	2.5	2	2
CO3	3	2	2	2
Average	3	2	2	2

B.Sc. (HOME SCIENCE)
SEMESTER – III
CC8: Interior Design & Home Decor

Course No.: HS 302-B

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Instructions for the examiner : The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To develop skills, abilities & knowledge that enable artistic production & creative problem solving skills.

CO2: To develop and apply concepts of art & design to create aesthetically pleasing interiors.

CO3: To impart knowledge & skills for aesthetic appreciation & evaluation

UNIT-I

1. Objectives of interior decoration: Elements of art and their importance in interior decoration
2. **Types of design:** structural and decorative and its application
3. **Elements of design:** line, shape, texture, light, colour, form, space and its application in interior decoration
4. **Principles of design:** Rhythm, balance, proportion, emphasis, harmony
5. **Colour:** Properties of colour, psychological effect of colour, color schemes and its application in the interior of a house.
6. **Flower arrangement:**
 - a) Different types of Flower arrangement
 - b) Accessories used and points to be considered for flower arrangement
 - c) Flower decoration for different occasions

UNIT-II

7. **Table setting and table manners:** Informal and formal table settings (buffet style, Indian style restaurant style, Cafe style)
8. **Furniture:** Types of furniture, materials and finishes of furniture, furniture arrangement for different areas; factors affecting the selection and purchase of furniture, care and maintenance of furniture
9. **Furnishings:**
 - Soft Furnishing (curtains, cushions, pillow and material for upholstered furniture)
 - Wall treatment and its types
 - Window treatment and decoration
 - Types of floor coverings
10. **Lighting:**
 - a) Types and requirement for various activities
 - b) Lighting fixtures in the home – Incandescent lamp, Fluorescent tube, CFL, LED, Halogen lamp

References:

1. Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
2. Riley & Bayen., (2003), The Elements of Design, Mitchell Beazley.
3. Rutt Anna Hong (1961): Home furnishing, Wiley Eastern Pvt.Ltd.
4. Bhat Pranav and Goenka Shanita (1990): The foundation of art and Design, Bombay: Lakhani Book Depot.
5. Goldstein, H. and Goldstein, V (1967): Art in Everyday life; New Delhi: Oxford and IBH publishing company .

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No.HS 302-B Interior Design & Home Decor

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2.5	2	2.5	2	2.5	2.5
CO2	2	2.5	1.5	2	2	1.5	1.5
CO3	2	2.5	3	2.5	2	2.5	2.5
Average	2	2.5	2.2	2.3	2	2.2	2.2

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No.HS 302-B Interior Design & Home Decor

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	1.5	2	3
CO2	3	2.5	2	2.5
CO3	3	3	3	2
Average	3	2.3	2.3	2.5

B.Sc. (HOME SCIENCE)
Home Management Practical
CC8: Housing and Space Management

Course No.:HS 302-B

MM: 25

Duration of Exam: 3 Hrs

Course Credit: 1

Course Outcomes: The outcomes of this course are:

CO1: To develop professional skills for interior designing & decoration.

CO2: To learn aesthetics & its application in different surroundings.

CO3: To make students aware of natural resources and its sustainable utilization.

Syllabus:

1. Rendering for different surfaces like trees, twigs, stones, wood, plastic, brick, waste material, glass, concrete etc using different types of paints and colours.
2. Preparation of portfolio based on market review of furniture and furnishing materials, wall coverings and decoration , floor covering and decoration , window and door treatment , lighting system , wood and its substitute and various artifacts like ceramics, frames , sculptures , handicraft, flower vase etc.
3. Preparation of catalogue comprising color wheel, planning color schemes for different rooms and application of elements of design in interiors of house.

**Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 302-B Practical: Interior Design & Home Decor**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2.5	2	2.5	2	2.5	1.5
CO2	2	2.5	2.5	2	2	2.5	2.5
CO3	2	3	2.5	3	2	2.5	2.5
Average	2	2.7	2.3	2.5	2	2.5	2.2

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 302-B Practical: Interior Design & Home Decor**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	1.5	2	2
CO2	3	2.5	2	2.5
CO3	3	2.5	3	2
Average	3	2.2	2.3	2.2

B.Sc. (HOME SCIENCE)
SEMESTER – III
CC9: Early Childhood Education & Children with Special Needs

Course No.: HS 303-A

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Instructions for the examiner : The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To sensitize the students to the special group of society whose needs are special in nature.

CO2: To understand the needs, educational provisions and attitude of society toward mentally retard, physically challenged and gifted children.

CO3: To get theoretical and practical knowledge about different types of early childhood education centers and their importance.

Co4: To acquaint with skills of establishing preschools by learning principles of programme planning and historical development of early childhood education

UNIT – I

1. Importance, objectives, scope of early childhood education, types of early childhood education centres (traditional and laboratory nursery school, Montessori school, Balwadi and Anganwadi)
2. **Preschool program:** Importance of Curriculum, principles of preschool program, activities in preschool program
3. Selection of play equipment (outdoor and indoor)
4. Role and qualities of good nursery teacher

UNIT - II

5. **Definition:** Disability, impairment, handicapped and disorder
6. Classification, causes, symptoms of following:-
 - Sensory impairment (visual, hearing)
 - Physical impairment (locomotor, autism, speech, cerebral palsy)
 - Intellectual impairment (mental retardation, gifted children)
 - Learning impairment (dyslexia)
 - Emotional impairment
7. Counseling and types of therapy for children with special needs
8. Welfare programmes for children with special needs

References:

1. Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi
2. See Felett: C. (1980): A curriculum for preschools, Columbus: Charles E. Merrill Publishing company
3. Berdine, W.H., Blackhurst, AE (1985): An introduction to special education (second ed.) Lexington, Harper Collins,
4. Hallahan, D.P. & Kauffman, J.M. (1991): Introduction to exceptional children (fifth ed.) Boston, Allyn and Bacon,
5. Loring J. & Burn, G. (eds) (1978): Integration of handicapped children in society, London, Routledge & Kegan Paul
6. Narasimhan, M.C. & Mukherjee, A.K. (1986): Disability; a continuing challenge
7. Werner, D. (1994): Disabled Village Children, (Indian edition), Voluntary Health Association of India,
8. Philip, M. & Duckworth, D. (1985): Children with disabilities and their families: a review of research, Windsor, Berks: NFER-NELSON Publishing Co.,
9. Cole, M. & Cole, S. (1993): The development of children. New York Scientific American Books.
10. Kumar, K. (1993): Study of childhood and family. In T.S Saraswathi & B. Kaur (Eds). Human development and family studies in India: An agenda for research and policy New Delhi: Sage.
11. Lerner: R.M. & Hotsch, D.F (1983): Human development : A life-span perspective. New York: McGraw Hill.,
12. Saraswathi, T.S, Verma, A., & Kalra, D (1988) : Issues in child development, Bombay: Somaya.
13. Berk, Laura E (1999). Child Development. Prentice Hall of India, Private Ltd. New Delhi.

Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 303-A Early Childhood Education & Children with special needs

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2	1	2	2	2	3
CO2	3	3	2	1	2	3	3
CO3	3	3	2	3	3	2	3
CO4	2	3	3	3	3	2	3
Average	2.5	2.75	2.0	2.25	2.5	2.25	3.0

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 303-A Early Childhood Education & Children with special needs

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	2
CO2	3	2	3	2
CO3	3	3	3	3
CO4	3	3	3	3
Average	3.0	2.5	2.75	2.5

B.Sc. (HOME SCIENCE)**Human Development Practical**
CC9: Early Childhood Education & Children with Special Needs**Course No.: HS 303-A****MM: 25****Duration of Exam: 3 Hrs****Course Credit:1****Course Outcomes:** The outcomes of this course are:**CO1.** To learn methods of child study for analyzing and improving the quality of life.**CO2.** To acquire professional skills in the field of Human Development.**Syllabus :**

1. Methods of child study and report writing on working of anganwadi, montessori, preschool, nursery, balwadi (any three)
 - Visit to nursery schools and case study of preschool children.
 - Report writing based on survey of welfare agencies working for special need children,
 - Observation of disability in childhood (any one); observation and report writing in School, outdoor circumstances/ home setting
2. Preparation of creative art activity file, chart, poster, storybook/ poem book etc. for normal and special need children (one each)
3. Preparation of baby records /albums.
4. Preparation of teaching aid and its practical use in nursery school settings for special need Children.

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 303-A (Practical) : Early Childhood Education & Children with Special Needs

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	3	2	2	2	2.5
CO2	3	3	3	3	2	3	3
Average	3	2.5	3	2.5	2	2.5	2.75

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 303-A (Practical): Early Childhood Education & Children with Special Needs

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2.5	2.5	3
CO2	3	2.5	3	2
Average	3	2.5	2.75	2.5

B.Sc. (HOME SCIENCE)
SEMESTER – III

CC9: Family Transition and Population Education .

Course No.: HS 303-B

MM: 80+20=100

Duration of Exam: 3 Hrs.

Course Credit: 4

Instructions for the examiner:The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To analyze the effects of population blast on the economy.

CO2: To know about the stages of family and the significance of changed faces of families in India.

CO3: To learn about methods and the importance of family planning

CO4: To understand the status of children and women in India.

UNIT – I

1. **Family:** Meaning, Types and Functions of family
2. **Marriage:** Definition, Meaning and Functions of marriage
Types and forms of marriages in India
Criteria for Mate selection and factors affecting mate selection,
Marital adjustments: Factors influencing marital adjustment
3. **Family transitions and its advantages and disadvantages:**
 - a) Nuclear, Joint and Extended families
 - b) Live in relationship
 - c) Single parenthood: Occupation related separation and Single parenthood by adoption , Employment of mother , Divorce, Death of a spouse
4. **Issues related to children in different circumstances:**
 - a) Child abuse
 - b) Child welfare services
 - c) Child trafficking
 - d) Child rights
 - e) Street children, working children and homeless children

UNIT-II

5. **Population Education:** Definition, Population blast and its effects, population statistics (sex ratio, literacy rate, mortality rate, morbidity rate according to latest census) with reference to child and women in India.
6. **Sex education:** Need, importance and issues.
7. **Family planning :** Methods, Small family norms.
8. Reproductive rights of women, Health programs related to child and women, current family welfare programs in India.

References:

1. Augustine, J.N. (Ed.) (1982): The Family in Transition ,New Delhi: Vikas Publishing House.
2. Coleman,J.C.(1986): Intimate Relationships, Marriage and the Family, Chicago: Macmillan publishing Co.
3. Coser,Rose (1975): The Family: its Structure and Functions,New York: Macmillan Publishing Co.
4. Guppy. G. R. (1976): Family and social Change in Modern India, New Delhi: Vikas Publishing Co.
5. Gore,M.S.(1968): Urbanization and family Change IN India Bombay: popular prakashan.
6. Hutter,Mark (1981): The Changing family :comparative, New York: John Wiley & sons.
7. Srinivasan,K.andMukerji,S.(Eds) (1987): Dynamics of Population and family Welfare ,Bombay: Himalayas Publishing House .
8. Tiss(1994): Enhancing the Role of the Family as an Agency for Social and Economic Development,Bombay:TISS.
9. Augustine,J.S.(Ed)(1982): The Indian Family in Transition,NewDelhi:Vikas publishing house,
10. Chowdhary,Paul D (1988): Youth Participation and development, New Delhi,Atmaram and sons .
11. Devadas T.S. (1979): Hindu Family and Marriage, Madras: University of Bombay.
12. M Desai,K.G.(Ed) (1989): ageing in India ,Bombay:tata Institute of Social Science .
13. Desai, N.andkrishanraj,M.(1987): Women and Society in India ,Delhi: Ajanta publications,
14. Ehta, P. (1977): The Indian Youth ,Emerging Problem and issues, Bombay: Somalia Publicatio
15. NIPCCD (1994): Child in India: A Statistical Profile, New Delhi: NIPCCD

**Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No.HS 303 -B Family Transition and Population Education**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	3	3	1	3
CO2	3	2	2	2	3	3	3
CO3	2	3	3	3	3	3	3
CO4	1	3	3	3	3	2	3
Average	2.25	2.5	2.25	2.75	3.0	2.25	3.0

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS303 -B Family Transition and Population Education**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	3	2	3
CO2	3	3	2	2
CO3	3	3	2	3
CO4	3	3	3	3
Average	3.0	3.0	2.25	2.75

B.Sc. (HOME SCIENCE)
SEMESTER – III
SEC-1: Personality Development

Course No.: HS 305

MM: 40+10=50

Duration of Exam: 3 Hrs.

Course Credit: 2

Instructions for the examiner :The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate :The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1. To learn personality development traits that enhance the quality of life

CO2. To acquire professional skills and leadership qualities

UNIT I

1. Personality development traits and types of personality introvert, extroverts.
2. Soft skills training : attitude, body language, self motivation, confidence, self-esteem, optimism etc.
3. Readiness to learn a new language other than mother tongue for effective communication (Listening, Public Speaking, Presenting).
4. Analyse the methods of creative problem solving. Methods to assess strengths /weaknesses.

UNIT II

5. Leadership skills and qualities
6. Importance of proper pronunciation for effective communication.
7. Active listening for effective communication
8. Concept of Mental health.

References:

1. Importance of stress management, time management & goal management Berger, J.M. (2010). Personality (8th ed.).
2. Belmont, CA: Thomson/Wadsworth Allen, B.P. (2006). Personality theories: Development, growth and diversity (5th ed.). Needham Heights, MA: Allyn and Bacon

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 305 Personality Development

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	3	2	2	2	3
CO2	3	3	2	3	2	3	3
Average	3	2.5	2.5	2.5	2	2.5	3

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 305 Personality Development

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3
CO2	3	2	3	2
Average	3	2	2.5	2.5

B.Sc. (HOME SCIENCE)
SEMESTER – IV
CC10: Nutrition in Life Cycle

Course No.: HS 401-A

MM: 60+15=75
Duration of Exam: 3 Hrs.
Course Credit: 3

Instructions for the examiner :The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate :The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To understand nutritional requirements during various stages of life.

CO2: To equip with the skills of meal planning by using recommended dietary intake and reference values.

CO3: To Acquire knowledge about nutritional problems during pregnancy and lactation; to plan and prepare diets for pregnancy and lactation.

CO4: To understand the nutritional needs & physiological problems of elderly and plan the diet accordingly.

Unit -1

A. Concept of balanced diet

- Basic principles of meal planning and factors affecting meal planning
- Dietary guidelines for Indians, Menu Planning.

B. Nutrition in infancy, recommended dietary allowances for various nutrients, advantages of breast milk over artificial milk with reference to nutritional & immunological qualities. Weaning and supplementary feeding.

C. Recommended dietary allowances, nutritional guidelines, nutritional concerns and healthy food choices for

- Preschool children
- School going children
- Adolescents.

Unit -2

D. Nutrition for adults, definition of reference adult men and women, requirement for different nutrients, dietary consideration for planning the diet for sedentary, moderate & heavy worker (male and female)

E. Physiological changes, recommended dietary allowances, nutritional guidelines, problems, requirement for different nutrients and dietary guidelines for

- Pregnancy
- Lactation

F. Physiological changes, recommended dietary allowances, nutritional guidelines, problems, requirement for different nutrients & dietary guidelines during old age.

References:

1. Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Khanna K, Gupta S, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House.
3. Wardlaw GM, Hampl JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
4. Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015 Gopalan C, Rama Sastri BV, BalasubramanianSC (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
5. Seth V and Singh K (2005). Diet Planning through the Life Cycle: Part 1
6. Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.

**Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 401- A: Nutrition in Life Cycle**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	3	3	1	3
CO2	3	2	2	2	3	3	3
CO3	2	3	3	3	3	3	3
CO4	2	3	3	3	3	2	3
Average	2.25	2.5	2.25	2.75	3.0	2.25	3.0

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 401-A: Nutrition in life Cycle**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3
CO2	3	3	3	2
CO3	3	3	2	3
CO4	3	3	3	3
Average	3	3	2.75	2.75

B.Sc. (HOME SCIENCE)
Foods & Nutrition Practical
CC10: Nutrition in Life Cycle

Course No.: HS 401-A

MM: 25

Duration of Exam: 3 Hrs.

Course Credit: 1

Course Outcomes: The course outcomes for this course are-

CO1: To prepare diet plans for various age groups and physiological conditions.

CO2: To calculate the nutritional content provided by these dietary plans as compared with the recommended dietary allowances.

Syllabus :

1. Introduction to meal planning
2. Use of dietary calculation method.
3. Food exchange method.
4. Planning and partial preparation of diets for following: Infants (Weaning foods), Preschool child, School going child, Adolescents, Adults, Pregnant woman, Lactating woman, Adulthood and Old age

Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 401 A Practical: Nutrition in Life Cycle

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	3	2	3	3	3
CO2	3	2	2	2	3	2	3
Average	3	2.5	2.5	2	3	2.5	3

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 401A Practical: Nutrition in Life Cycle

COs/PSOs	PSO1	PSO2	PSO3	PSO4
COs/PSOs	3	2	3	3
CO1	3	3	3	2
CO2	3.0	2.5	3	2.5

B.Sc. (HOME SCIENCE)
SEMESTER – IV
CC10: Food preservation and Community Nutrition

Course No.: HS 401-B

MM: 60+15=75

Duration of Exam: 3 Hrs.

Course Credit: 3

Instructions for the examiner: The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1. To understand various causes of food spoilage and knowledge about microorganisms, their beneficial and harmful effects on food.

CO2. To equip with the skills of food preservation by using different processing techniques.

CO3 To Assess nutritional status of community.

CO4. To understand the nutritional problems prevalent in the community ,their causes and their preventive measures.

Unit 1

- A. **Food storage:** Domestic and commercial storage
- B. Food Spoilage, its causes and preventive measures
- C. **Microorganisms:** types, beneficial effects on food.

D. Food preservation –

- Importance for community,
- Principles of food preservation,

Methods of food preservation:

- Preservation by using low temperature,
- Preservation by use of high temperature
- Preservation by use of preservatives
- Preservation by dehydration
- Preservation by use of osmotic pressure.

Unit - 2

E. Assessment of nutritional status: methods and applications

- Direct methods – anthropometry & clinical examination
- Indirect methods – dietary assessment

F. Common nutritional deficiencies: Aetiology, clinical features & prevention of:

- Protein energy malnutrition.

- Nutritional anaemia
- Vitamin A deficiency
- Iodine Deficiency Disorder

G. Food adulteration (in brief)

References:

1. Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi. Park K (2011).
2. Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s BanarsidasBhanot Publishers, Jabalpur, India.
3. Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
4. ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad. ICMR (2011)
5. Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
6. Jelliffe DB, Jelliffe ERP, Zervas A and Neumann CG (1989). Community Nutritional Assessment with special reference to less technically developed countries. Oxford University Press. Oxford. World Health Organization (2006). WHO Child Growth Standards: Methods and development: Length/height-for-age, weight-for-age, weight-for-length, weight-for height and body mass index-for-age (<http://www.who.int/childgrowth/standards/en/>).

**Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 401 B Food Preservation and Community Nutrition**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	2	2	3	2	3
CO2	3	2	2	2	3	3	3
CO3	3	2	3	3	3	2	3
CO4	3	3	3	3	3	2	3
Average	3	2.5	2.5	2.5	3	2.25	3

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 401 B Food Preservation and Community Nutrition**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	3	2	3
CO2	3	3	2	2
CO3	3	3	2	3
CO4	3	3	3	3
Average	3.0	3.0	2.25	2.75

B.Sc. (HOME SCIENCE)
Foods & Nutrition Practical
CC10: Food Preservation and Community Nutrition

Course No.: 401-B

MM: 25

Duration of Exam: 3 Hrs.

Course Credit: 1

Course Outcomes: The outcomes of this course are-

CO1: To learn the skills of preserving food by using various processing techniques

CO2: To assess the nutritional status of a family by using various procedures

Syllabus:

1. Assessment of nutritional status of your own family by using dietary and anthropometric measurements.
2. Preparation, calculation of nutritive value and end point test (wherever applicable) of following products (any 10)
 - Jam
 - Jelly
 - Murabba
 - Marmalade
 - Pickle sour
 - Pickle sweet
 - Ketchup and Chutney
 - Drying of vegetables
 - Squash/ Sharbat
 - Fruit crush
 - Fruit candy

Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 401 B Practical: Food Preservation and Community Nutrition

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	3	2	3	3	3
CO2	3	2	2	2	3	2	3
Average	3	2.5	2.5	2	3	2.5	3

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 401 B Practical: Food Preservation and Community Nutrition

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	3
CO2	3	3	3	2
Average	3.0	2.5	3	2.5

B.Sc. (HOME SCIENCE)
SEMESTER – IV
CC11: Life Span Development-II

Course No.: HS 402-A

MM: 60+15=75
 Duration of Exam: 3 Hrs.
 Course Credit: 3

Instructions for the examiner :The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To impart knowledge about scientific study of childhood and adolescence.

CO2: To learn about key areas of childhood and adolescence in context with the influence of peers, school, family and culture.

CO3: To sensitize students to the common challenges and dealing skills to overcome the problems.

CO4: To acquaint students with various ways in which one can create wellbeing in adolescence.

UNIT-I

1. Physical and Motor Development:

- a. Physical and motor development in childhood and adolescence.
- b. Puberty, growth spurt (including primary and secondary sexual characteristics).
- c. Motor development: major milestones through end of middle, late childhood and adolescence.
2. **Emotional and cognitive development:** Milestones of emotional development and cognitive development through middle school age to adolescence.
3. **Moral development:** Kohlberg's Stages of Moral development.

UNIT-II

4. **Play** – Meaning, Importance during middle and late childhood, its types (indoor and outdoor) and theories of play
5. **Common behavioral problems and their remedies:** nail biting, lying, depression, stealing, bed wetting, anger, aggression, anxiety, ADHD, substance use.
6. **Socialization:** Meaning of socialization, role of the family and community in socialization of the child.

References :

1. Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi.
2. Ambron. S.R. (1975): Child Development, Rinchart press San Francisco.
3. Sinha, D. (1981): Socialization of the Indian Child. New Delhi
4. Rao, P. and Rao, V.N. (1982): Marriage, the family and women in India, New Delhi: Vikas Publications.
5. Augustine, J.N. (Ed.) (1982): The family in transition, New Delhi: Vikas Publishing House
6. Lerner Hultsch (1983): Human Development: a life-span perspective, New York, Mc. Graw Hill Book Co.
7. Coleman, J.C. (1986): Intimate relationships, marriage and the family, Chicago, Macmillan publishing co.
8. Saraswathi, T.S. & Kaur, B. (1993): The development of children. New York: Scientific American books.
9. Cole, M.P. Cole, S. (1993): The development of children. New York: Scientific American books.
10. Gordon, I.J. (1975): Human Development New York: Harper & Row
11. Mussen, P., Conger, J.J. Kagan, J & Huston, A.C. (1945): Child Development and Personality, New York: Harper and Row
12. Srivastav, A.K. (1993): Child and adolescent Psychology: seminar readings New Delhi
13. Mangal SK (1988) General Psychology. Sterling Pub. Co New Delhi

**Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 402-A Life Span Development-II**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2.5	2	2.5	2	2.5	2.5	3
CO2	2.5	2.5	2.5	2	2	2	3
CO3	2	1.5	2	2.5	2	1.5	2.5
CO4	2.5	2	1.5	3	1.5	2.5	2
Average	2.4	2	2.1	2.4	2	2.1	2.6

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No HS 402-A Life Span Development-II**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3
CO2	2.5	3	2	2
CO3	2.5	3	3	2.5
CO4	2	2.5	3	3
Average	2.5	2.6	2.5	2.6

B.Sc. (HOME SCIENCE)
Human Development Practical
CC11: A Life Span Development-II

Course No.: HS 402-A

MM: 25

Duration of Exam: 3 Hr

Course Credit: 1

Course Outcomes: The outcomes of this course are:

CO1: To study the influence of peers, school, family and culture on childhood and adolescence

CO2: To sensitize students to the common challenges and dealing skills to overcome the problems.

Syllabus :

1. Observing children in various settings (a) Home setting (b) School setting (c) Outside of Home

2. Recording all round development of children below 12 years (physical, motor, social, emotional, cognitive and language development) by using any five following tests / any other equivalent tests or anecdote :
 - General Mental Ability Test for Children.
 - The Parent Child Relationship Scale (PCRD).
 - a. Emotional Stability Test for Children (ESTC).
 - b. High School Personality Questionnaire (HSPQ).
 - c. Adjustment Inventory.
 - d. Reactions to Frustration Scale (RFS).
 - e. Children's Approval Seeking Test (CAST).
 - f. Language Creativity Tests in English and Hindi (LCT).

**Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 402-A Practical (Life Span Development-II)**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	3	2	2	2	3
CO2	3	3	2	3	2	3	3
Average	3	2.5	2.5	2.5	2	2.5	3

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 402-A Practical (Life Span Development-II)**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3
CO2	3	2	3	2
Average	3	2	2.5	2.5

B.Sc. (HOME SCIENCE)
SEMESTER – IV
CC11: Adulthood; Guidance and Counseling

Course No.: HS 402-B

MM: 60+15=75

Duration of exam: 3 Hrs.

Credit: 3

Instructions for the examiner: The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the candidate: The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To understand various milestones the attributes of an adult during different stages of adulthood.

CO2: To sensitize to the needs & problems of elderly during old age and learn the adjustment to the problems.

CO3: To equip with the skills of counseling by inculcating principles, methods and techniques used in guidance & counseling.

CO4: To inculcate the skills of effective counselling & characteristics of a good counselor.

UNIT I

1. Young Adulthood:
 - Developmental Tasks
 - Physical, Social and vocational Development
 - Parenthood
2. Middle Adulthood:
 - Developmental Tasks
 - Physical changes, Social and vocational Development
 - Mid Life crisis and menopause
3. Late Adulthood:
 - Developmental Tasks
 - Physical changes and health problems
 - Retirement and Grandparenthood
 - Problems and Adjustments in old age and Widowhood
 - Death, dyeing process (Kobbler's theory)
4. Status of aged in society and current old age welfare schemes (SCSS, PMVVY, HelpAge India, and IGNOAPS)

UNIT II

5. Guidance and counseling: Concepts, difference, need, objectives and its scope
6. Principles of guidance and counselling.
7. Types, approaches, and process of counseling.

8. Assessment techniques in guidance & counseling. Skills and characteristics of an effective counselor.

References:

1. Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi
2. Rao, P. and Rao, V.N. (1982): Marriage, the family and women in India, New Delhi: Vikas Publications.
3. Augustine, J.N. (Ed.) (1982): The family in transition, New Delhi: Vikas Publishing House
4. Lerner Hultsch (1983): Human Development: a life-span perspective, New York, Mc. Graw Hill Book Co.
5. Coleman, J.C. (1986): Intimate relationships, marriage and the family, Chicago, Macmillan publishing co.
6. Saraswathi, T.S. & Kaur, B. (1993): The development of children. New York: Scientific American books.
7. Cole, M.P. Cole, S. (1993): The development of children. New York: Scientific American books.
8. Gordon, I.J. (1975): Human Development New York: Harper & Row
9. Mussen, P., Conger, J.J. Kagan, J & Huston, A.C. (1945): Child Development and Personality, New York: Harper and Row

**Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 402-B Adulthood; Guidance and Counseling**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2.5	1	3	3	1	3
CO2	3	2.5	2	2	3	3	2.5
CO3	2	3	3	2	3	3	3
CO4	2	3	3	3	3	2	2.5
Average	2.5	2.75	2.25	2.5	3.0	2.25	2.75

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 402-B Adulthood; Guidance and Counseling**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	3	2	3
CO2	3	2.5	2	2.5
CO3	3	3	2	3
CO4	3	2.5	3	2.5
Average	3.0	2.75	2.25	2.75

B.Sc. (HOME SCIENCE)
Human Development Practical
CC11: Adulthood; Guidance and Counseling

Course No.: HS 402-B

MM: 25

Duration: 2 Hrs.

Credit: 1

Course Outcomes: The outcomes of this course are:

CO1: To understand various stages of adulthood regarding their growth and problems.

CO2: To sensitize the students regarding the adjustment problems of elderly.

CO3: To teach the students methods and techniques used in guidance & counseling.

CO4: To inculcate the skills of effective counseling & characteristics of a good counselor.

Syllabus:

1. Visit an old age Centre/ home and report changes in behaviour pattern, physical conditions & habits of old people.
2. Case profile to study young adulthood / late adulthood
3. Visit of counseling center and report writing
4. Preparation of questionnaire related to Problems during pregnancy and menopause period.
5. Visit a Gynecology Centre / Maternity Hospital, filling the questionnaire from pregnant women and women at menopause stage, report writing and presentation.
6. Preparation of any two useful creative materials for adults which can be used during counseling / sold online

**Mapping of Course Outcome with Program Outcome (CO/PO)
Paper No. HS 402-B Practical (Adulthood; Guidance and Counseling)**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	3	3	1	3
CO2	3	2	2	2	3	3	3
CO3	2	3	3	3	3	3	3
CO4	1	3	3	3	3	2	3
Average	2.25	2.5	2.25	2.75	3.0	2.25	3.0

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
Paper No. HS 402-B Practical (Adulthood; Guidance and Counseling)**

CO1	3	3	2	3
CO2	3	3	2	2
CO3	3	3	2	3
CO4	3	3	3	3
Average	3.0	3.0	2.25	2.75

B.Sc. (HOME SCIENCE)**SEMESTER – IV****CC-12****Community Development and Extension Education – I****Course No.: HS 403-A****MM: 60+15=75****Duration of exam: 3 Hrs.****Credit: 3**

Instructions for examiner: The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question.

Instructions for candidate: The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To understand the concept of society and social structure

CO2: To acquaint students with the types of communication in extension education

CO3: To skill students about Community development programs.

CO4: To impart knowledge about various rural development programs and various ongoing schemes by government and non-government organizations

UNIT -I

- A. Meaning and elements of organization and social structure
- B. Characteristics of Social systems and its relationship with social structure; Types of society
- C. Concept, Importance and functions of Communication
- D. Types of Communication:
 - Formal and informal
 - Verbal and non-verbal
 - Written and Visual
 - Intrapersonal and interpersonal
 - Grapevine
- E. Models of communication: Linear model, Interactive model and Transactional model
- F. Barriers to communication

Unit II

- A. Community Development Programme: Historical background, objectives, activities, achievements and critical analysis

- B. Rural Development Programmes and organizations (Establishment year, Objectives and beneficiaries): DWCRA, TRYSEM, Mid-day Meal Programme, Beti Bachao Beti Padhao, PMRY, Skill India, ICDS, MGNREGA, DRDA, FAO, WHO, ICMR, UNICEF, UNESCO, ICAR
- C. Role of National and International Non-Governmental Organizations in rural Development (International-Amnesty International, the International Federation of Red Cross and Red Crescent Societies, Oxfam International, CARE, Save the Children)

References:

1. Bhalla, C.L.(2009). Audio Visual Aids in Education. Cornell University.
2. Chitambar, J.B. (2008). Introductory Rural Sociology. New Age International(P) Limited.
3. Dhamma, O.P and Bhatnagar, O.P (2003). Education and Communication for development. Oxfords IBH, New Delhi.
4. Golahait, S. B. (2010). Rural Development programmes in India: Problems and Prospects. Altar Publishing House.
5. Jain, M.(2011).Rural Development Programs in India. Deep and Deep Publications
6. Ray, G.L. (2004). Extension education and Management. Kalyani Publisher, New Delhi.
7. Reddy, A.A.(2001).Extension Education. Bapatla : Sri Lakshmi Press.
8. Sachdeva, D.R. and Bhushan, V. (2007). An Introduction to Sociology. Kitab Mahal Agency, Delhi.
9. Sehgal, S. and Raghuvanshi, R.S. (2007). Textbook of Community Nutrition. ICAR, New Delhi.

**Mapping of Course Outcomes to Program Outcomes (CO/PO)
HS 403-A: Community Development and Extension Education - I**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	3	3	3	2	3
CO2	3	3	3	3	3	3	3
CO3	2	2	3	3	3	2	3
CO4	2	3	3	3	3	3	3
Average	2.5	2.75	3	3	3	2.5	3

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
HS 403-A Community Development and Extension Education-I**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2	3
CO2	3	3	3	2
CO3	3	2	3	3
CO4	2	3	3	2
Average	2.75	2.5	2.75	2.5

B.Sc. (HOME SCIENCE)**SEMESTER – IV****CC-12****Community Development and Extension Education – II****Course No.: HS 403-B****MM: 60+15=75****Duration of exam: 3 Hrs.****Credit: 3**

Instructions for examiner: The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question.

Instructions for candidate: The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory questions.

Course Outcomes: The outcomes of this course are:

CO1: To understand the concept of Extension education

CO2: To acquaint students with the role of communication in extension education

CO3: To skill students about philosophy and principles of extension teaching methods

CO4: To impart knowledge about various audio, visual and audio-visual aids in extension education and how information can be disseminated by using these aids.

UNIT-I

- A. Extension teaching Methods: Its importance and types
- Individual contact method: Farm & home visit, telephone calls, personal letters
 - Group contact method: Demonstration, Group meeting and discussion, Conference, seminars and workshops, field trips and campaigns.
 - Mass contact method: Print media, Electronic media, Internet based media and Exhibition
- B. Print media: Types, nature and characteristics
- C. Electronic Media: Radio, Television and Internet
- D. Types of ICT in communication: Educational networking; mobile learning, web based learning; classroom equipment and learning

Unit -II

- A. Relation between communication and extension education
- B. Concept, philosophy and principles of Extension education
- C. Qualities of a good extension worker

- D. Meaning, classification and functions of audio, visual and audio-visual aids
- Audio aids: Radio, Tape recorder
 - Visual Aids: Charts, Posters, Leaflets/pamphlet, PPT, Flash cards, Models, booklet, white board, graphic designs
 - Audio-visual aids: Demonstrations, Films, Printed material with recorded sound, Drama, cartoon videos, LCD projector, use of social media.

References:

1. Bhalla, C.L. (2009). Audio Visual Aids in Education. Cornell University.
2. Dhamma, O.P. and Bhatnagar, O.P. (2003). Education and Communication for development. Oxfords IBH, New Delhi.
3. Golahait, S. B. (2010). Rural Development programmes in India: Problems and Prospects. Altar Publishing House.
4. Grover, I. (2002) ed. Communication and Instructional Technology. Agrotech Publishing Academy, Udaipur.
5. Jain, M. (2011). Rural Development Programs in India. Deep and Deep Publications
6. Ray, G.L. (2004). Extension education and Management. Kalyani Publisher, New Delhi.
7. Reddy, A.A.(2001).Extension Education. Bapatla: Sri Lakshmi Press.
8. Sehgal, S. and Raghuvanshi, R.S. (2007). TextBook of Community Nutrition. ICAR, New Delhi.

**Mapping of Course Outcome with Program Outcome (CO/PO)
HS 403-B: Community Development and Extension Education-II**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	3	3	3	2	3
CO2	3	3	3	3	3	3	3
CO3	3	2	3	3	3	2	3
CO4	3	3	2	3	3	3	3
Average	3	2.75	2.75	3	3	2.5	3

**Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)
HS 403-B : Community Development and Extension Education - II**

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	3	2	3
CO2	3	3	3	2
CO3	3	2	3	3
CO4	2	3	3	3
Average	2.75	2.75	2.75	2.75

B.Sc. (HOME SCIENCE)**SEMESTER – IV****CC-12****Practical****CC12: Computer Applications in Communication and Media Design****Course No.: HS 403-C****MM: 50****Duration of Exam: 3 Hrs.****Credit: 2****Course Outcomes:** The course outcomes for this course are-**CO1:** To learn different techniques of designing through computerized methods.**CO2:** To prepare various IEC materials with use of multiple software.**Syllabus:**

1. Use of Computer Application Designing for Extension and Communication
2. Use of following software for making IEC material and teaching aids:
 - Word processor (Microsoft word / Google Docs)
 - Presentation software (Microsoft PowerPoint / Google Slides, Canva)
 - Adobe photoshop
3. Preparation of Audio-Visual aids using software e.g. charts, pamphlets, posters, flipbooks, leaflets, presentations

References:

1. Khirwadkar A, Pushpanadan, (2006), Information and Communication Technology in Education, Sarup and Sons, Delhi.
2. Sampath K (1998), Introduction to Educational Technology, Sterling Publishers Pvt. Ltd
3. Sagar Krishna (2007), ICTs and Teacher Training, Authors Press, Delhi.
4. Valerie Q (1998), Internet in a nutshell, Shroff Publishers and Distributors Pvt. Ltd, Delhi

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS 403-C (Practical): Computer Applications in Communication and Media Design

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	3	3	3	1	2
CO2	3	3	2	2	3	2	2
Average	3	2.5	2.5	2.5	3	1.5	2

Mapping of Course Outcomes to Program Specific Outcomes (CO/PSO)

Paper No. HS 403-C (Practical): Computer Applications in Communication and Media Design

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	3
CO2	3	2	3	3
Average	3	2	3	3

B.Sc. (HOME SCIENCE)
SEMESTER – IV
SEC-2
Basics of Physics

Course No.: HS 404

MM: 40+10=50

Duration of exam: 3 Hrs.

Credit: 2

Instructions for the Examiner:

The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

Instructions for the Candidate:

The candidates will attempt five questions in all, selecting two questions from each unit as well as compulsory questions.

Course Outcomes: The outcomes for this course are:

CO1: To acquire knowledge about different types of applications in day today's life.

CO2: To understand the concept of household electricity

CO3: To develop skills for handling the equipment & to gain practical knowledge of Instruments and their application.

UNIT-I

1. Introduction to properties of matter

(a) Properties of Solids: Density, specific gravity, elasticity, hardness, malleability, ductility.

(b) Properties of liquids: Surface Tension, capillary action, Archimedes Principle, Specific gravity of liquids, fluid pressure.

(c) Properties of gases: Elasticity, compressibility, Atmospheric Pressure, Simple Barometer, Commercial Barometer.

2. Mechanics

(a) Units and Measurements: Concepts of measurements and units of length, mass and time

(b) Simple machines: Lever (Definition & Types), Equipment working on the principle of lever (Pulley, Scissors, Egg Beater, Nut Cutter).

(c) Friction: Friction Advantages and disadvantages, concepts of ball bearing, sewing floor, scrubbing machines.

(d) Centripetal and centrifugal forces: spin dryer in washing machine.

Unit- II

3. Heat

(a) Introduction to heat: Unit of Heat, Sources and properties of heat, heat and temperature, heat transfer, humidity, relative humidity and dew point.

(b) Application of heat transfer: Household thermometers, pressure cooker, vacuum coffee maker

4. Household Electricity

(a) Elementary Knowledge of Electricity: Electric Current (AC & DC), Ohm's Law, Resistance, Sources of electricity (AC Generator & DC Generator, Dry Cell, Thermocouples)

(b) Household electric wiring - Electric meter, household electric wiring and safety features (Fuse, MCB, Earthing).

(c) Battery charger, Inverter, UPS, Voltage stabilizer

(d) Principles of working of basic equipment

- Ovens
- Microwave
- Refrigerator
- Washing Machine

References:

1. Household Physics (2012), Claude H. Brechner, Hard press.
2. Applied Photographic Optics, 3rd Edition, Sidney E. Ray, Focal Press 2002.
3. Modern Physics, Murugesan, S. Chand and Co., 2002.
4. Engineering Physics: Fundamentals and modern applications, P. Khare and A. Swarup, Jones and Bartlett Publishers, 2010
5. Murugesan, Modern Physics, S. Chand and Co., 2002. Bhatia, K.B., Elements of Electrical Gadgets, Arya Book Depot, 1993.
6. College Practical Physics by Khanna and Gulati, S. Chand and Co., (1999)

Mapping of Course Outcomes with Program Outcomes (CO/PO)
Paper No. HS- 404: Basics of Physics

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	3	2	3	2	3	3
CO2	2	2	1.5	2	2	1.5	1.5
CO3	3	3	3	2	2	1.5	3
Average	2.3	2.6	2.2	2.3	2	2	2.5

Mapping of Course Outcomes to Program Specific Outcomes
Paper No. HS - 404: Basics of Physics

COs/PSOs	PSO1	PSO2	PSO3	PSO4
CO1	3	2.5	2	2
CO2	3	2.5	2	2
CO3	3	3	3	2
Average	3	2.6	2.3	2