

# University of Rajasthan Jaipur

## SYLLABUS

**B.Sc. (HOME SCIENCE)**

**PART-II**

**Examination-2024**

*P. J. Jain*  
Dy. Registrar  
(Academic)  
University of Rajasthan  
JAIPUR

## B.SC HOME SCIENCE – PART II

### SCHEME OF EXAMINATION

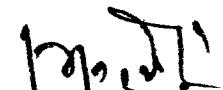
The number of papers and the maximum marks for each paper together with the maximum marks required for a pass course are shown in the scheme of examination against each subject separately. It will be necessary for a candidate to pass in theory as well as practical part of a subject paper, wherever prescribed, separately. Classification of successful candidates shall be as follows:

First Division 60% of the aggregate marks prescribed in honors and subsidiary subjects of Pt.I, Pt.II and Pt.III examination taken together.

Second Division 48% of the aggregate marks prescribed in honors and subsidiary subjects of Pt.I, Pt.II and Pt.III examination taken together.

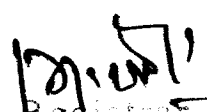
**The theory examination paper will consist of three parts:**

1. **Part I** – will comprise of 10 very short answer questions of 2 marks each. The answer to each question must be within the limit of 20-40 words.
2. **Part II** - will comprise of 5 short answer questions of 4 marks each. The answer to each question must be within the limit of 50-60 words.
3. **Part III** - will comprise of 6 long answer questions (essay type) of 20 marks each with internal choice in each question. Candidate will need to attempt only 3 questions.

  
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**Scheme for B.Sc. Home Science Part II**

Paper	Subjects	Duration of Exam	Max Marks	Min Marks	No. of Hr/wk Th	No. of Hr/wk Pr
VI	Apparel Technology (Theory)VI	3 hrs	100	36	4	
	Apparel Construction (Practical)VI	3 hrs	50	18		2
VII	Extension Education and Development (Theory)VII	3 hrs	100	36	4	
	Extension Education and Development (Practical)VII	3 hrs	50	18		2
VIII	Life Span Development (Theory)VIII	3 hrs	100	36	4	
	Human Development (Practical)VIII	3 hrs	50	18		2
IX	Nutritional Biochemistry (Theory)IX	3 hrs	100	36	4	
	Nutritional Biochemistry (Practical)IX	3 hrs	50	18		2
X	Interior Space Design (Theory)X	3 hrs	100	36	4	
	Interior space design (Practical)X	3 hrs	50	18		2
Total			750	270	20-	10=36

  
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## B.SC. HOME SCIENCE PART II

### APPAREL TECHNOLOGY (THEORY VI)

**Max Marks: - 100 marks**

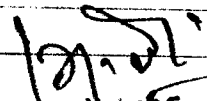
**Teaching workload: 4 hours/week**

**Total teaching workload: 96 hours/year**

**Objectives :**

1. To teach students about evolution and socio psycho aspects of clothing
2. To educate about selection of clothing
3. To familiarize the students with the garment production .

UNIT-I	Hours
1. Importance of clothing	3
2. Social and psychological aspects of clothing <ul style="list-style-type: none"> <li>• Functions of clothing</li> <li>• Theories of clothing</li> <li>• Clothing in relation to status, culture and rituals</li> <li>• Individuality and conformity</li> <li>• Conspicuous consumption</li> </ul>	10
3. Evolution of clothing in Indian context <ul style="list-style-type: none"> <li>• Sources of evidence for the study of historic costumes</li> <li>• Timeline of clothing of draped style of early civilization till stitched style of 21<sup>st</sup> century.</li> </ul>	8
UNIT-II	
4. Selection of suitable fabrics and garments for <ul style="list-style-type: none"> <li>• Age – infants, toddlers, pre-school children, school going children, adolescents</li> <li>• Climate, occasion, occupation, fashion, figure</li> <li>• Clothing for people with special needs: maternity and lactation, old age and physically challenged.</li> </ul>	20
5. Selection of readymade garments <ul style="list-style-type: none"> <li>• Appearance- Size, design, line and colours.</li> <li>• Fabric- Durability, ease of care</li> <li>• Workmanship- Cutting, sewing and finishing</li> <li>• Cost &amp; Fitting</li> </ul>	
6. Production in apparel industry <ul style="list-style-type: none"> <li>• Fusing &amp; pre folding machines</li> <li>• Cutting &amp; spreading – marker types and calculation</li> <li>• Spreading process and equipments</li> <li>• Types of cutting machines</li> <li>• Ticketing and bundling – purpose and types</li> </ul>	15
UNIT-III	
7. Quality specification system for garment manufacture	12

  
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	<ul style="list-style-type: none"> <li>• Quality in raw material</li> <li>• Quality in process production</li> <li>• Quality in final garment</li> </ul>	
8.	Computer application - automation in garment manufacturing	10
9.	Merchandising and Retailing <ul style="list-style-type: none"> <li>• Career in merchandising</li> <li>• Future of merchandising</li> <li>• Interior display</li> <li>• Window display</li> <li>• Meaning and importance of Retailing</li> <li>• Types of retail organisations - Speciality stores, Departmental stores, Franchise retailing, shopping malls etc.</li> </ul>	18

**References :**

1. Doongaji S. & Deshpande R.: Basic Processes & clothing Construction.
2. Kefgan & Phyllis T. Individuality in clothing. Specht & Mac Million Publication.
3. Mabel D.E. & A.K.: Clothing for Moderns, 3<sup>rd</sup> edition. New York: Mac Million.
4. Tate & Glisson(1961): Family Clothing, New York. John Wiley.
5. Amita . A. Stamper . Sue Humphervis Stamp. (1986) .Evaluating Appareal Quality . Fairchild . New York.
6. Armstrong J. , Pattern making for fashion design (4<sup>th</sup> edition) . Pearson education
7. Thompson & Rea (1947) . The clothing for Children . John Wiley and sons . Inc. . New York.
8. Vatsala R. . Textbook & clothing (2003) . ICAR (Indian Council of Agricultural Research)
9. Frings . Gini . Stephens . Fashion – Concept of Consumer . Prentice Hall International . New Jersey.
10. Marilyn J. Horn.. The second Skin (3<sup>rd</sup> edition) . Houghton Mifflin Company. London
11. Marshall G.S.Jackson O. H, Stanley M. S. (2012). Individuality in Clothing Selection and Personal Appearance . Prentice Hall , New Jersey.
12. Stone . Elaine and Samples . Jean.. A Fashion Merchandising . McGraw Hill Book Company.

**APPAREL CONSTRUCTION (PRACTICAL - VI)**

**Max Marks: - 50 marks**

**Teaching workload: one practical/week (2 hours/practical)**

**Total teaching workload: 24 practicals/batch**

**Objectives:**

1. To equip students with basics of sewing
2. To instruct them to learn about children and women clothing

**Contents:**

	Practical
1. Taking body measurements for different types of garments.	1
2. Introduction to sewing machine and sewing kit	
3. Hand stitches	-
<ul style="list-style-type: none"> <li>• Functional : Temporary , Permanent , basting , hemming , running , back stitch</li> <li>• Plain seam and finishes</li> <li>• Enclosed seam :- Run &amp; fell , French seam</li> </ul>	

	<ul style="list-style-type: none"> <li>Fasteners :- Hook with eye, shank button, loop &amp; button</li> <li>Plackets :- Even hem, continuous wrap, two piece placket</li> <li>Edge finishing :- shaped facing, bias facing &amp; bindings</li> </ul>	
4.	Disposal of fullness :- pin tucks, simple gathers, pleats - knife, box	
5.	Construction of Childs and Adult Bodice block with sleeve block	2
	Drafting & Construction of Garments	
	Children - 'A' line frock with variations in sleeve and collar / gathered frock with variations in sleeve and collar.	10
6.	<ul style="list-style-type: none"> <li>Women - Saree blouse and petticoat / Kurta with salwar or churidar</li> </ul>	
	Visit to garment production unit.	4

### Examination Scheme

Internal - 20 Marks

Major Problem - 23 Marks (Drafting, Stitching and Finishing)

Minor Problem - 7 Marks (Sample)

### TEACHING AND LEARNING IN EXTENSION (THEORY VII)

Max Marks: - 100 marks

Teaching workload: 4 hours/week

Total teaching workload: 96 hours/year

UNIT- I		Classes
1	Concept of Learning, Elements & Principles involved in Learning	6
2	Types of learning	2
3	Effective learning situation	3
4	Adult learning - Concepts, objectives, Principles and Characteristics of Adult Learners	8
5	Extension teaching - Concept, Definition, Steps and Factors Effecting Teaching	8
6	Motivation- Concept, Types and Principles/techniques of Motivating people in extension, Maslaw theory of motivation	6
<b>UNIT- II</b>		
7	Teaching methods in Extension - concept and Importance	2
8	Classification of Methods - according to use, nature, form, learning objective, innovation decision process and according to adopters categories	4
9	Purpose, Procedure, Advantages and Limitations of each teaching method	22
10	Factors affecting Use and Selection of Teaching method	4
<b>UNIT- III</b>		
11	Teaching Aid- Concept and selection Criteria	3
12	Classification of teaching aids on the basis of material used in teaching learning process- 1. Projected and non projected 2. Audio, Visual and Audio-visual	4
13	Concept, importance, strategies for development and uses, advantages and limitations of each teaching Aid	22
14	Cone of Experience	2

### References-

1. Dahama O.P. (1988) : Education and Communication for Development, Oxford and

IBH Publishing Co. Pvt. Ltd. New -Delhi

2. Directorate of Adult Education, Govt. of India (1994). New Delhi, Literacy Digest, National Literacy Mission.
3. Hussain Institute for non-formal and continuing education.
4. Jain, R. (1993) Mass Media and Rural Development, Vell. II Manak Publication Pvt. Ltd. New-Delhi
5. Kindervalter, Suzanne (1979): Non-formal Education as an Empowering Process . Centre for International Education , 285 , Hills House South Amherst , Massachuseets 01003, USA.-University of Massachusetts.
6. Mistry S.P.(1998) Non Formal Education 1998 Radha Publications 437814B , Ansari Road , Darya Ganj, New Delhi - 1100002.
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8. Pillai , K.S. (1993) : ABC of Non-Formal Education , 17-B , Indraprasth Estate, New Delhi , Indian Adult Education Association.
9. Rajani R. Stirurr - Non-Formal Education for Development, APH Publishing Corporation , 5 , Ansari Road DarysGanj New Delhi - 1 , 10002
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11. Sharma SR (1997) - Reflections on Continuing and Non - Formal Education -Pointer Publisher , S.M.S. Highway , Jaipur.
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16. Uttam Kumar Singh and A K Nayak , (1997) Extension Education, Commonwealth Publishers in association with Dr. Zakir Hussain Institute of Non-formal and Continuing Education.

### DEVELOPMENT COMMUNICATION (PRACTICAL - II)

**Max Marks: - 50 marks**

**Teaching workload: one practical/week (2 hours/practical)**

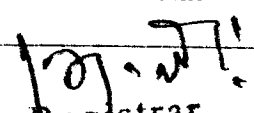
**Total teaching workload: 24 practicals/batch**

Objectives

1. To develop skills in preparing various visual aids.
2. To develop skills in using visual aids for learning effectively

1	Planning, preparation and use of (any three) - Audio aids Visual aids and Audio Visual	10
2	Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.	14

7

  
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## LIFE SPAN DEVELOPMENT (THEORY VIII)

Max Marks: - 100 marks

Teaching workload: 4 hours/week

Total teaching workload: 96 hours/year

### Objectives:

1. To acquaint the students with the process of life span development.
2. To build understanding of various developmental concepts and achievements.
3. To understand the emerging issues and adjustment across life span stage.
4. To sensitize students to understand developmental delays, laps and individual differences in human development.

### UNIT I Hours

- |    |   |    |
|----|---|----|
| 1. | PRENATAL- Conception, stages of prenatal development factors affecting prenatal development, hazards and abnormalities during prenatal development, birth process, complication and recent technological advances in prenatal development and care. | 12 |
| 2. | NEONATE- Adjustment, sensory, perceptual, abilities, feeding practices and care of new born, importance of early stimulation.   | 10 |
| 3. | INFANCY- Milestone of infancy, physical, motor, social, emotional, cognitive and language development.  | 10 |

### UNIT-II

- |    |  |    |
|----|--|----|
| 4. | EARLY CHILDHOOD (2 Years to 6 Years)- Developmental Milestones, Major Developments, Significance of Early Childhood years, Importance of play during early childhood.  | 10 |
| 5. | MIDDLE CHILDHOOD AND LATE CHILDHOOD (6 Years to 12 Years)- Developmental Milestones, Major Developments, Peer Pressure, Early and Late Maturity and Factors Influencing Major Development.   | 12 |
| 6. | ADOLESCENTS (12 Years to 19 Years)- Developmental Milestones and Major Developments, Pubertal Changes, Growth Spurt, Early and Late Maturity Identity Crisis, Problems and Conflicts in Family, Friendship and Heterosexual and Homosexual Relationship, STDs, Juvenile Delinquency. | 12 |

### UNIT-III

- |    |  |    |
|----|--|----|
| 7. | YOUNG ADULTHOOD (20 Years to 40 Years)- Developmental Milestones, Responsibilities, Adjustments and Challenges, Changing trends in parenting.  | 10 |
|    | • MIDDLE AGE (40 Years to 60 Years)- Developmental milestones, Characteristics, Changes, Challenges and Adjustment, Health issues and Menopause, Mid life crisis, Course Work and Satisfaction.  | 10 |
|    | • LATE ADULTHOOD/ AGING (60 Years onwards)- Developmental Changes, Physical, Physiological, Health, Cognitive changes, Retirement, Financial Problems and Adjustment to loneliness, Family settings, illness, Recreational interest, Provisions and Policies for Aging Adults. | 10 |

### References :

1. Berk, L. (2006). Child development. Allyn & Bacon, New York
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3. Hurlock E.B. (1978). Child Development, McGraw Hill Publishing Co.
4. Lefrancis, G.R. (1996). The Life Span, Wadsworth Publication Company, USA, California.



5. Rice, F. (1992). Human Development: A Life Span Approach. Prentice Hall
6. Rice, P. (1995). Human Development: A Lifespan Approach. Prentice-Hall Inc. New Jersey.
7. Santrock, J.W. (1997). Life Span Development. Brown & Benchmark. New York
8. Santrock, J.W. (2007). Life span Development (3<sup>rd</sup>ed). Tata – McGrawHill. New Delhi

### HUMAN DEVELOPMENT ( PRACTICAL - XIII)

**Max Marks: - 50 marks**

**Teaching workload: one practical/week (2 hours/practical)**

**Total teaching workload: 24 practicals/batch**

**Objectives :**

1. Students will gain insight into the growth patterns, developmental characteristics and activities of children in a practical situation.
2. They will also learn to understand significant issues related to adolescents, adults and ageing people.

Contents :	Practical
1. Study of the reflexes of new born in child clinics.	4
2. Anthropometric measurement of children from birth to 6 years. Plotting and interpretation of data as per WHO norms.	4
3. Planning, Preparation and conduction of developmentally appropriate activities to enhance overall development of children physical, motor language, cognitive, social and emotional (AV aids).	8
4. Focus group discussion with adolescents to understand their aspirations, educational and career choices.	4
5. Preparation of a brief questionnaire to identify the problems faced by adults and aging people in communities. Report the information as individual case profile.	4

**Examination Scheme**

Major Problem – Preparation of aids	10 marks
Minor Problem –	
• Plotting and interpretation of data on group	5 marks
• Recognition of reflexes	5 marks
• Preparing Questionnaire	5 marks
• Viva	5 marks
• Internal	20 marks

### NUTRITIONAL BIOCHEMISTRY (THEORY – IX)

**Max Marks: - 100 marks**

**Teaching workload: 4 hours/week**

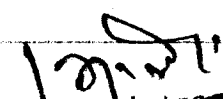
**Total teaching workload: 96 hours/year**

**Objectives:**

This course will enable the students to –

1. Develop an understanding of the fundamentals of biochemistry.
2. To understand the biochemical process and systems as applicable to human nutrition.

UNIT I	Hours
1. Introduction to Nutritional Biochemistry : <ul style="list-style-type: none"> <li>• Definition and Objectives</li> </ul>	4

  
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	<ul style="list-style-type: none"> <li>• Scope of Biochemistry: knowledge of electron, proton, neutron, atomic number, atomic weight, valency, structure of carbon, pH, buffer, normal and molar solutions.</li> <li>• Role of Biochemistry in clinical nutrition.</li> </ul>	10
2.	<b>Carbohydrates</b> <ul style="list-style-type: none"> <li>• Definition, composition and classification of Carbohydrates.</li> <li>• Functions, Deficiencies and Sources.</li> <li>• General properties of monosaccharides, disaccharides and polysaccharides: oxidation reduction, acetylation, inter conversion, reducing property, osazone formation.</li> <li>• Digestion and Absorption.</li> </ul>	8
3.	<b>Lipids</b> <ul style="list-style-type: none"> <li>• Definition and classification of lipids.</li> <li>• Functions, Deficiencies and Sources.</li> <li>• Important properties of fats: Hydrogenation, halogenation, Iodine number, rancidity, acid number.</li> <li>• Types and properties of fatty acids, essential and non essential fatty acids.</li> <li>• Types and importance of phospholipids, glycolipids and cholesterol.</li> <li>• Digestion and Absorption.</li> </ul>	11
4.	<b>Proteins</b> <ul style="list-style-type: none"> <li>• Definition, composition and classification of Proteins</li> <li>• Functions, Deficiencies and Sources.</li> <li>• Essential and Non essential Amino acids</li> <li>• Quality of protein, supplementary value of protein.</li> <li>• Methods used in determining Quality of proteins – PER, NPU, BV, and Nitrogen Balance.</li> </ul>	8
<b>UNIT – II</b>		
5.	<b>Nucleic Acid</b> <ul style="list-style-type: none"> <li>• Types, composition</li> <li>• Functions of Nucleic Acids.</li> <li>• Elementary knowledge of Biosynthesis of proteins.</li> </ul>	12
6.	<b>Vitamins (A, D, E, K, B complex and C).</b> <ul style="list-style-type: none"> <li>• Definition and Classification.</li> <li>• Functions, Deficiencies and Sources.</li> <li>• Digestion and absorption</li> </ul>	11
7.	<b>Minerals (Calcium, Phosphorus, Iron, Iodine, Fluoride, Copper, Zinc, Sodium and Potassium).</b> <ul style="list-style-type: none"> <li>• Definition and Classification.</li> <li>• Functions, Deficiencies and Sources.</li> <li>• Absorption and Factors affecting absorption.</li> </ul>	12
<b>UNIT – III</b>		
8.	<b>Enzymes</b> <ul style="list-style-type: none"> <li>• Definition and classification of enzymes</li> <li>• Mechanism of enzyme action. Factors affecting enzyme reactions: substrate, temperature, pH activator and inhibitor.</li> </ul>	20
9.	<b>Intermediary Metabolism</b> <ul style="list-style-type: none"> <li>• Carbohydrates - Glycolysis (aerobic and anaerobic), TCA Cycle, Electron Transport chain, glycogenesis, glycogeneolysis.</li> </ul>	

gluconeogenesis, blood sugar regulation.

- Lipids - Beta oxidation and ketosis.
- Proteins - General reactions of amino acid metabolism: deamination, transamination, decarboxylation and urea cycle.

#### References:

1. Devlin T.M. (1986) 2<sup>nd</sup> Ed. Text Book of Biochemistry with Clinical Correlations. John Wiley and Sons.
2. Fruton J and Symond S. General Biochemistry, Asia Publishing House, Mumbai.
3. Talwar, G.P. (2002) 3<sup>rd</sup> Edition, Text Book of Biochemistry and Human Biolog
4. Prentice Hall of India, New Delhi.
5. Kahn Conn, E.E. Stamp P.K. (2000) 7<sup>th</sup> Edition, Outlines of Biochemistry Willey Eastern Pvt. Ltd. New Delhi.
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7. Nagar, R and Nair, S. (2001) Jeev Rasayan, Rajasthan Hindi Granth Academy V. Jaipur.
8. Oser B.L. (1965) 14<sup>th</sup> Ed. Hawk's Physiological Chemistry, McGraw Hill Book Co.
9. Rama Rao, A. V.S.S: (1993) 2<sup>nd</sup> Edition, A Text Book of Biochemistry, L.k. & S. Publishers, Tanuka.
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12. White, A, handar, P. Smith E.L. Stelten D.W. (1959) 2<sup>nd</sup> Edition Principles of Biochemistry McGrawhill Book.

#### NUTRITIONAL BIOCHEMISTRY(PRACTICAL-IX)

**Max Marks: - 50 marks**

**Teaching workload: one practical/week(2 hours/practical)**

**Total teaching workload: 24 practicals/batch**

#### Objectives:

This course will enable the student to understand:

1. Qualitative analysis of carbohydrates and proteins.
2. Quantitative analysis of carbohydrates and fats
3. Identification of adulterants

#### Contents:

	Practical
Qualitative analysis of known mono-saccharides:	03
(a) Glucose (b) Fructose (c) Galactose	
Qualitative analysis of unknown monosaccharides	01
Qualitative analysis of known disaccharides	03
(a) Maltose (b) Lactose (c) Sucrose	
Qualitative analysis of unknown disaccharide	01
Qualitative analysis of known polysaccharides	03
(a) Starch (b) Dextrin (c) Glycogen	01
Qualitative analysis of unknown polysaccharides	02
Qualitative analysis of protein - egg albumin and milk protein casein.	02
Qualitative analysis of fat & oil.	01
Estimation of Moisture content of fresh peas.	01
Estimation of ash content of milk powder.	01

Estimation of reducing sugar in honey by Benedict reagent:	01
Estimation of acid value of rancid ground nut oil.	01
Estimation of Iodine value of ground nut oil.	01
Estimation of vitamins in lemon juice by dye method.	01
Qualitative testing of some food adulterants in	02
(a) Metanil yellow in turmeric powder, arhar dal and yellow sweets.	
(b) Vanaspati in pure ghee.	
(c) Chalk powder and sand in wheat flour.	
(d) Aluminium in sweets.	
(e) Saccharine in sugar cane.	
(f) Argemone oil in mustard oil.	
(g) Lead chromate and coal tar dye in turmeric powder.	
(h) Starch in milk.	

#### References:

1. A Practical Manual Wheeler Publishers.
2. Devlin T.M. (1986) 2nd Ed. Text Book of Biochemistry with Clinical Correlations. John Wiley and Sons.
3. Fruton J and Symond S. (1965) 14th Edition. General Biochemistry. Asia Publishing House, Mumbai.
4. Indian Standards Institution (1985) ISI Hand Book of Food Analysis. Parts I to XI. Manak Bhawan, New - Delhi.
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17. Willian, S. 16th Edition JAOAC Official Methods of Analysis of the Association of Official Analytical Chemists.
18. White, A. handar, P. Smith E.L. Stelten D.W. (1959) 2nd Edition Principles of Biochemistry McGrawhill Book.

#### Examination Scheme

Marks

Qualitative analysis of carbohydrate / oil / protein.	20
Quantitative analysis (Titration )	11
• Principle	03
• Method	01
• Observation and calculation	03
• Result	03
Identification of adulterants	05
Viva	05
Internal	20

### INTERIOR SPACE DESIGN (THEORY -X)

**Max Marks: - 100 marks**

**Teaching workload:4 hours/week**

**Total teaching workload:96 hours/year**

**Objectives :**

1. Gain knowledge about the use of art principles in the field of interior.
2. To become aware regarding waste management.

#### UNIT-I

#### House Interiors & its treatment

**Hours**

1.	Wall & wall finishes	4
	• Definition & importance	
	• Types of walls	
	• Wall treatments: paints, plaster, panelling, wall papers	
2.	Floor & floor coverings	4
	• Definition & importance	
	• Types of floor finishes	
	• Floor coverings	
	• Types of floor covering	
3.	Ceilings	4
	• Definition & importance	
	• Types of ceilings	
	• Treatments for ceilings	
4.	Door & Window	6
	• Parts of a door & window	
	• Types of doors & windows	
5.	Arches	3
	• Introduction & importance	
	• Types of arches	
6.	Stairs	3
	• Introduction & importance	
	• Types of stairs	

#### UNIT-II

#### Room decoration

7.	Furniture	4
	• Types of furniture	
	• Selection use & care	
	• Ergonomic design of furniture	
	• Arrangement of furniture in various rooms	

	Using Anthropometric measurements in room for furniture arrangement	4
	<ul style="list-style-type: none"> <li>• Bed room</li> <li>• Drawing room</li> <li>• Dining room</li> <li>• Children room</li> </ul>	
9.	Flower decoration	4
	<ul style="list-style-type: none"> <li>• Selection of plant material for</li> <li>• Fresh arrangement</li> <li>• Dry arrangement</li> </ul>	
10.	<ul style="list-style-type: none"> <li>(a) Basic equipments</li> <li>(b) Vases and containers</li> <li>(c) Type of flower arrangement</li> <li>(d) Shaping an arrangement</li> </ul>	
	Door and window treatments	4
	<ul style="list-style-type: none"> <li>(a) Hard</li> <li>(b) Soft</li> <li>(c) Accessories</li> </ul>	
11.	Art & Accessories	5
	<ul style="list-style-type: none"> <li>• Selection and use for various rooms:</li> <li>• Types of accessories</li> <li>• Selection</li> </ul>	
12.	Interior lighting	8
	<ul style="list-style-type: none"> <li>• Use</li> <li>• Light fixture, accessories and protective devices</li> <li>• Types &amp; purpose of light for various rooms and various activities</li> <li>• Quantity and quality of light available from various sources</li> <li>• Calculation of lighting requirements in a room</li> </ul>	

### UNIT-III

#### Kitchen planning & waste management

13.	Kitchen as an important unit of house	3
	<ul style="list-style-type: none"> <li>• Functions performed in kitchen</li> <li>• Functional design &amp; arrangement of work places.</li> </ul>	6
	Kitchen geometry	
	<ul style="list-style-type: none"> <li>• Work heights of different work areas and storage areas</li> <li>• Space dimensions of different work centres and work areas</li> </ul>	
	Principles of kitchen planning	8
	<ul style="list-style-type: none"> <li>• Orientation and location of a kitchen</li> <li>• Size and shape of a kitchen</li> <li>• Ventilation, light and socio- economic status of family</li> <li>• Cost and aesthetics</li> <li>• Storage needs</li> <li>• Works centres and work triangle</li> <li>• Colour and safety</li> </ul>	6
	Material specifications for kitchen	
	<ul style="list-style-type: none"> <li>• Floor, wall, sink, ceiling and its characteristics</li> <li>• Platforms, storage etc</li> <li>• Type of finishes</li> </ul>	
	Using Anthropometric measurements in kitchen design	6
	<ul style="list-style-type: none"> <li>• Storage</li> </ul>	

- Counter
- Domestic waste management techniques 8
- Salvage or manual component separation
  - Compaction or mechanical reduction
  - Incineration or thermal volume reduction
  - Open dumping
  - Sanitary land filling or controlled tipping
  - Composting
  - Vermiculture biotechnology
  - Waste management by 3 R techniques : Reduction, Reuse Recycle

Kitchen Gardening 6

- Planning of kitchen garden
- Preparation of a kitchen garden
- Methods of propagation
  - Seed propagation
  - Vegetative propagation
- Rotation of crops
- Time for negotiable sowing
- Landscape gardening

Note: seminar presentation on selected topics from unit I

**References:**

1. All you need to know about design & Decorating, (1985) Marshal Carendish Books Ltd.
2. Birrel, Verla Leone (1967), Colour and Design. A basic Text (Vol. I & II) Digest submitted in requirement for the degree of education in Teacher college Columbia university.
3. Bryan Lawson (1980), How Designer Think. Architectural press Ltd.
4. Gillat M. & Goldstein V. (1967), Art Everyday Life. Oxford & IBH publishing Co., New Delhi.
5. Goldstein M. & Goldstein V. (1967), Art Everything Life, Mc Graw hill Books comp.Ltd. , New York.
6. Halse Alert O. (1978), The use of colour in interior (2<sup>nd</sup> Ed.), Mc Graw Hill Books Comp. Ltd. New York.
7. Harburgsen, Gaillhyn (1980), Design Concepts. Allyn & Bacon Inc.
8. Patani M., (2010) Home Management. Star Publication, Agra.
9. Sulharia and Diamond- Inside Design Creating Tour Environment: Harer and Row Publisher, New York.
10. Thomson C.H. (1970), home with character (III rd Ed.), Massachusetts. C. Health & Co., Lexington.
11. Varghese, M. Atreya, N. Bhatnagar, A. and Chatterjee, I. , Ergonomics In Kitchen Design. Dept of P.G. studies and research in Home science, Mumbai.

**INTERIOR SPACE DESIGN (PRACTICAL-N)**

Max Marks: - 50 marks

Teaching workload: one practical/week (2 hours/practical)

Total teaching workload: 24 practicals/batch

**Objectives:**

1. Know the various materials used in construction.

2. Gain knowledge in principles of planning various types of residential space.
3. Be able to top choose furnishing material keeping the financial consideration in mind
4. Gain knowledge on furnishing; develop the skills of drainage, house plans and furniture layouts. creating design for furnishing items.

Contents:	(one class practical)
1.	Market survey on material used in interiors window
2.	Market survey on material used in interiors door
3.	Market survey on material used in interiors roof
4.	Market survey on material used in interiors Ceiling.
5.	Market survey on material used for kitchen & modular kitchen
6.	Drawing types of door and window and their treatments
7.	Drawing of roof ceiling & Flooring types
8.	Drawing types of furniture for various rooms
9.	Flower arrangement: fresh arrangement
10.	Making artificial flowers
11.	Flower arrangement: dry arrangement
12.	Making a Decorative article using any waste material like Vase, flowers & others
13.	Introduction to types of Furnishing. Accessories and lighting
14.	Drawing of standard kitchen plan
15.	Planning different types of kitchen- L- shape, one wall, U- shape and two wall kitchen
16.	Developing three dimensional plans of kitchen with storage unit- L shape and one wall
17.	Developing three dimensional plans of kitchen with storage unit- U shape and two wall
18.	Interior space planning for different areas of a house in terms of colour, furnishings, furniture arrangement, window treatments, floorings, ceilings, accessories, lighting-Bed room and children's room
19.	Interior space planning for different areas of a house in terms of colour, furnishings, furniture arrangement, window treatments, floorings, ceilings, accessories, lighting-Living room and dining room
20.	Interior space planning for different areas of a house in terms of colour, furnishings, furniture arrangement, window treatments, floorings, ceilings, accessories, lighting-Study room and drawing room
21.	Architectural model (three dimensional) of various rooms along with layout of interiors - bed room and children's room
22.	Architectural model (three dimensional) of various rooms along with layout of interiors- Living room and dining room
23.	Architectural model (three dimensional) of various rooms along with layout of interiors- study room and drawing room

#### Examination Scheme

Exercise	Marks
<b>Major:</b> Three dimensional Models of rooms and kitchen	20
<b>Minor I</b> Drawing of types of door windows, roofs, ceilings, flooring	5
<b>Minor II</b> Flower arrangement, door or window treatments, lighting	5
<b>Internal</b>	10
<b>Total</b>	<b>50</b>