

# UNIVERSITY OF RAJASTHAN JAIPUR

**SYLLABUS** 

**B.Sc.** (Home Science)

Part-II

**EXAMINATIONS – 2017** 

Dy. Registrar (Acad.)
University of Rajasthan
JAIPUR

# UNIVERSITY OF RAJASTHAN JAIPUR SYLLABUS

Scheme of Examination and
Course of Study

FACULTY OF SCIENCE

B.Sc (HOME SCIENCE)

PART II Examination, 2016

(10+2+3 Pattern)

Dy. Registrar (Acad.)
University of Rajasthan
AIPUR

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#### **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	75	18		2
VII	Extension Education and	3 hrs	100	36	4	
	Development (Theory)VII Extension Education and Development	3 hrs	50			2
VIII	(Practical)VII 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 Interior space	3 hrs	100	36	4	
	design(Practical)X	3 hrs	50	18		2
		Total	775	270	20+	10=30

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# **B.SC. HOME SCIENCE PART II**

APPAREL TECHNOLOGY (THEORY VI)					
1	Max Marks: - 100 marks				
	Teaching workload: 4 hours/week Total teaching workload: 96 hours/year				
	ectives:				
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				
UNI	T-I	Hours			
1.	Importance of clothing	3			
2.	Social and psychological aspects of clothing	10			
,	Functions of clothing				
	Theories of clothing				
	Clothing in relation to status, culture and rituals				
İ	Individuality and conformity				
3.	• Conspicuous consumption				
] .	Evolution of clothing in Indian context				
	Sources of evidence for the study of historic costumes	8			
(	• Timeline of clothing of draped style of early civilization till				
IINI	stitched style of 21 <sup>st</sup> century.  T-II				
4.	Selection of suitable fabrics and garments for	20			
	Age – infants, toddlers, pre-school children, school going children,	20			
	adolescents				
	Climate, occasion, occupation, fashion, figure				
	<ul> <li>Clothing for people with special needs: maternity and lactation, old age and physically challenged.</li> </ul>				
	Selection of readymade garments	·			
	<ul> <li>Appearance—Size, design, line and colours,</li> </ul>				
	<ul> <li>Fabric- Durability, ease of care</li> </ul>				
	<ul> <li>Workmanship- Cutting, sewing and finishing</li> </ul>				
	• Cost & Fitting	15			
5.	Production in apparel industry	15			
	<ul> <li>Fusing &amp; pre folding machines</li> </ul>				
	<ul> <li>Cutting &amp; spreading – marker types and calculation</li> </ul>				
	<ul> <li>Spreading process and equipments</li> </ul>				
	<ul> <li>Types of cutting machines</li> </ul>				
	Ticketing and bundling – purpose and types				
	187	11			

UNIT-III		
6.	Quality specification system for garment manufacture	12
	Quality in raw material	
	Quality in process production	
	Quality in final garment	
7.	Computer application / automation in garment manufacturing	10
8.	Merchandising and Retailing	
0.	Window display	18
	Interior display	
	Career in merchandising	
	Future of merchandising	
	Meaning and importance of Retailing	
	• Types of retail organisations - Speciality stores, Departmental stores,	
	Franchise retailing, shopping malls etc.	
Refe	rences:	
l.	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.	
<b>1</b> .	Tate & Glisson(1961): Family Clothing, New York, John Wiley.	
5.	Amita, A. Stamper, Sue Humpheris Stamp. (1986), Evaluating Appareal (Fairchild, New York.	
5.	Armstrong J., Pattern making for fashion design (4th edition), Pearson education	
7.	Thompson & Rea (1947), The clothing for Children, John Wiley and sons, Inc.	c., Nev
)	York.  Voted B. Toythook & elething (2003) ICAB (Indian Council of Agr	: al•ma
3.	Vatsala R., Textbook & clothing (2003), ICAR (Indian Council of Agr Research)	icultura
€.	Frings, Gini, Stephens, Fashion – Concept of Consumer, Prentice Hall Intern	ational
<b>,</b>	New Jersey.	ationai
0.	Marilyn J, Horn., The second Skin (3 <sup>rd</sup> edition), Houghton Miffin Company, Lor	ndon
1.	Marshall G.S.Jackson O. H, Stanley M. S. (2012), Individuality in Clothing S	
	and Personal Appearance, Prentice Hall, New Jersey.	
12.	Stone, Elaine and Samples, Jean., A Fashion Merchandising, McGraw Hi	ll Bool
	Company.	

Max Marks: - 75 marks

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

Total teaching workload: 24 practicals/batch

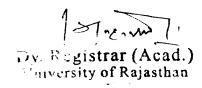
# Objectives:

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

LC	ontents:	ractical
1.	Taking body measurements for different types of garments.	1
2.	Hand stitches	7
	Functional: Temporary, Permanent, basting, hemming, running, back stitch	

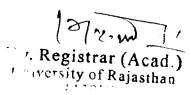
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		,	
	Plain seam and finishes		
	Enclosed seam :- Run & fell , French seam		
	• Fasteners :- Hook with eye, shank button, loop & button		
	• Plackets: – Even hem, continuous wrap, two piece placket		
	<ul> <li>Edge finishing: - shaped facing, bias facing &amp; bindings</li> </ul>		
	• Disposal of fullness: - pin tucks, simple gathers, pleats - knife, box		
3.	Construction of Childs and Adult Bodice block with sleeve block		
4.	Drafting & Construction of Garments	2	
''	Children - 'A' line frock with variations in sleeve and collar / gathered frock	10	
	with variations in sleeve and collar.		
5.	Women - Saree blouse and petticoat./ Kurta with salwar or churidar		
	Visit to garment production unit.	4	
Fva	mination Scheme		
	1. Major Problem – 45 Marks (Drafting, Stitching and Finishing)		
i i	2. Minor Problem – 15 Marks (Sample)		
	3. Internal 15 Marks		
<u> </u>	EXTENSION EDUCATION AND DEVELOPMENT (THEORY VII)		
Max	Marks: - 100 marks		
	ching workload: 4 hours/week		
	al teaching workload: 96 hours/year		
	ectives :		
	o make the students understand the concept of Extension and its related aspects.		
	o understand the existing supports structure for development efforts.		
	understand the role of various organizations/institutions in community development.		
ı	4. To sensitize the students towards major developmental issues.		
UNI			
	ory of Development in India	Hours	
1.	Changing concepts and Approaches in development.	7	
2.	Concept of Community Development- Evaluation of Community Development	7	
	Programmes in India since independence.		
3.	History of Extension Activities in India and Scope of Home Science Extension	12	
	for meaningful participation in community development in India	12	
4.	Role of-voluntary organizations, KVK, village institutions - School, Panchayat		
	and Co-operatives in development.	10	
UNI	TII		
Exte	nsion Education	-	
5.	Concept and Types of Education- Formal, Non-formal, Informal and Extension	13	
	Education- Meaning, Philosophy, Objectives, Elements, Principles, Process of		
	Education- Meaning, Filhosophy, Objectives, Elements, Filhelpies, Process of	}	
	Extension. Extension worker- Qualities and Role		
6.	Extension. Extension worker- Qualities and Role	-	
6.	Extension. Extension worker- Qualities and Role Extension models- Technology – Innovation – Transfer Model, Empowerment/	7	
6. 7.	Extension. Extension worker- Qualities and Role Extension models- Technology – Innovation – Transfer Model, Empowerment/ Participation Model	7 13	
7.	Extension. Extension worker- Qualities and Role Extension models- Technology – Innovation – Transfer Model, Empowerment/	i	
7. UNI	Extension. Extension worker- Qualities and Role Extension models- Technology – Innovation – Transfer Model, Empowerment/ Participation Model Participatory methods and approaches – PRA, RRA, PLA	i	



Relevant Developmental issues in India - Poverty, health and Nutrition, Population Growth, Illiteracy, Neglect in early childhood: causes, extent and communication of

less than 3 years for health and nutrition care.	
Study the important Flagship developmental programmes of Government of India with	
9 special reference to their objectives, target groups, activities, organizational structure	15
and financial support.	
References:	
1. Dahama O.P. (1988): Education and Communication for Development,, Oxf	ford and
IBH Publishing Co. Pvt. Ltd. New –Delhi	
2. Jain, R. (1993) Mass Media and Rural Development. Voll. Il Manak Publicat	tion Pvt.
Ltd. New-Delhi	
3. O.S. Rathore. (1999) Handbook of extension Education, Agrotech Publishing.	
4. Pankajam G. (2000) – Extension – Third Dimension of Education, Gyan Pul House, New –Delhi.	iblishing
5. Roy, G.L. (1991) Extension Communication Management, Naya Prakash. Kolkat	ıta.
6. Uttam Kumar Singh and A K Nayak, (1997) Extension Education, Commo	nwealth
Publishers in association with Dr. Zakir Hussain Institute of Non-formal and Cor	ntinuing
Education.	
EXTENSION EDUCATION AND DEVELOPMENT (PRACTICAL- VII)	
Max Marks: - 50 marks	
Teaching workload: one practical/week(2 hours/practical)	
Total teaching workload: 24 practicals/batch	
Objectives:	
Objectives: 1. To develop skills in planning and presentation of extension teaching methods.	onina
Objectives: 1. To develop skills in planning and presentation of extension teaching methods. 2. To understand the role of village level organization in the development and their function	oning.
Objectives: 1. To develop skills in planning and presentation of extension teaching methods. 2. To understand the role of village level organization in the development and their function.  Contents:  Practical	oning.
Objectives: 1. To develop skills in planning and presentation of extension teaching methods. 2. To understand the role of village level organization in the development and their function	
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/	4
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function   Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.	4
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class	4
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.	4
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme	14 6
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student due.	4 14 6 uring the
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  20 mark	4 14 6 uring the
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  20 mark  2. Plan and present one extension teaching method given by the external examiner	4 14 6 uring the ks
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Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  2. Plan and present one extension teaching method given by the external examiner  3. Viva  5 ma	4 14 6 uring the ks narks arks
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Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/puppetry, group discussion, talk and bulletin board display.  Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  2. Plan and present one extension teaching method given by the external examiner  3. Viva  5 ma  4. Internal Assessment-record and class room participation  LIFE SPAN DEVELOPMENT(THEORY VIII)	4 14 6 uring the ks narks arks
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/puppetry, group discussion, talk and bulletin board display.  3. Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  2. Plan and present one extension teaching method given by the external examiner  3. Viva  4. Internal Assessment-record and class room participation  LIFE SPAN DEVELOPMENT(THEORY VIII)  Max Marks: - 100 marks	4 14 6 uring the ks harks arks
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function Contents:  Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/ puppetry, group discussion, talk and bulletin board display.  Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  2. Plan and present one extension teaching method given by the external examiner  3. Viva  4. Internal Assessment- record and class room participation  LIFE SPAN DEVELOPMENT(THEORY VIII)  Max Marks: - 100 marks  Teaching workload:4 hours/week  Total teaching workload:96 hours/year  Objectives:	4 14 6 uring the ks harks arks
Objectives:  1. To develop skills in planning and presentation of extension teaching methods.  2. To understand the role of village level organization in the development and their function.  Contents: Practical  1. Visit to village organizations mentioned in the theory and submit the report for the same.  2. Develop skills in extension teaching methods- Demonstration, drama/ role play/puppetry, group discussion, talk and bulletin board display.  Select any Flagship programme or developmental issue and present same in the class room.  Examination Scheme  1. Evaluation of project report on selected developmental issues prepared by the student dusession by the external examiner  2. Plan and present one extension teaching method given by the external examiner  3. Viva  4. Internal Assessment- record and class room participation  LIFE SPAN DEVELOPMENT(THEORY VIII)  Max Marks: - 100 marks  Teaching workload:4 hours/week  Total teaching workload:96 hours/year	4 14 6 uring the ks harks arks



4. To sensitize students to understand developmental delays, laps and individual

3. To understand the emerging issues and adjustment across life span stage.

differences in human development.

UN	IT 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	12
2.	in prenatal development and care.  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
UN	IT-II	
4.	EARLY CHILDHOOD (2 Years to 6 Years)- Developmental Milestones, Major Developments, Significance of Early Childhood years, Pre-School Education and Play.	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
IIN	IT-III	<u> </u>
7.	YOUNG ADOULTHOOD (20 Years to 40 Years)- Developmental	10
	<ul> <li>Milestones, Responsibilities, Adjustments and Challenges. Changing trends in parenting.</li> <li>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.</li> <li>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.</li> </ul>	10
Ref	erences :	J
2	<ol> <li>Berk, L. (2006). Child development. Allyn &amp; Bacon. New York</li> <li>Berke L.E. (1995). Child Development, Allyn and Bacon</li> <li>Hurlock E.B. (1978). Child Development, Mcgraw Hill Publishing Co.</li> <li>Lefrancois, G.R. (1996). The Life Span. Wadsworth Publication Company: USA: Cali</li> <li>Rice, F. (1992). Human Development: A Life Span Approach. Prentice Hall.</li> <li>Rice, P. (1995). Human Development: A Lifespan Approach. Prentice-Hall Inc. New J</li> <li>Santrock, J.W. (1997). Life Span Development.Brown &amp; Benchmark. New York</li> <li>Santrock, J.W. (2007). Life span Development (3<sup>rd</sup>ed). Tata – McGrawHill. New Delhi</li> </ol>	ersey.

# HUMAN DEVELOPMENT (PRACTICAL - XIII)

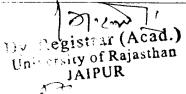
Max Marks: - 50 marks

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	2. They will also learn to understand significant issues related to adolescents,	adults a
Cont	ageing people.  tents:	ractical
1.	Study of the reflexes of new born in child clinics.	4
2.	Anthropometric measurement of children from birth to 6 years. Plotting and	4
۷.	interpretation of data as per WHO norms.	
3.	Planning, Preparation and conduction of developmentally appropriate	
٥.	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,	4
т.	educational and career choices.	
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
1	nination Scheme . Major Problem – Preparation of aids 10 marks	
2	. Minor Problem –	
•	. Towns a contract of the cont	
•	nevo B. m. or vertexes	
•	Preparing Questionnaire 8 marks Viva 5 marks	
	. Internal 10 marks	
	NUTRITIONAL BIOCHEMISTRY (THEORY – IX)	
Teac	Marks: - 100 marks hing workload: 4 hours/week I teaching workload: 96 hours/year	
	ctives:	
This o	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 nu	trition.
TINU	·I	Hours
1.	Introduction to Nutritional Biochemistry:	4
	Definition and Objectives.	
1	<ul> <li>Scope of Biochemistry: knowledge of electron, proton, neutron, atomic</li> </ul>	
	number, atomic weight, valency, structure of carbon, pH, buffer, normal and	
	molar solutions.	
	Role of Biochemistry in clinical nutrition.	
2.	Carbohydrates	10
	Definition, composition and classification of Carbohydrates.  Figure Definition and Samuel.	
1	<ul> <li>Functions. Deficiencies and Sources.</li> <li>General properties of monosaccharides, disaccharides and polysaccharides:</li> </ul>	
	oxidation reduction, acetylation, inter conversion, reducing property, osazone	

<u></u>	formation.	T
,	Digestion and Absorption.	
3.	1	
	Lipids  • Definition and classification of lipids.	8
	·	
	Functions, Deficiencies and Sources.  In the second s	
	Important properties of fats: Hydrogenation, halogenation, Iodine number,	
	rancidity, acid number.	
	Types and properties of fatty acids, essential and non essential fatty acids.	
	Types and importance of phospholipids, glycolipids and cholesterol.	
4.	Digestion and Absorption.	
	Proteins	11
	Definition, composition and classification of Proteins.	
	Functions, Deficiencies and Sources.	
	Essential and Non essential Amino acids.	[
	Quality of protein, supplementary value of protein.	
	<ul> <li>Methods used in determining Quality of proteins – PER, NPU, BV, and</li> </ul>	,
	Nitrogen Balance.	
	T – II	
5.	Nucleic Acid	8
	Types , composition	
	Functions of Nucleic Acids.	•
	Elementary knowledge of Biosynthesis of proteins.	12
6.	Vitamins ( A, D, E, K, B complex and C).	12
	Definition and Classification.	
	Functions, Deficiencies and Sources.	
ŀ	Digestion and absorption	
7.	Minerals (Calcium, Phosphorus, Iron, Iodine, Fluoride, Copper, Zinc,	11
	Sodium and Potassium).	
	Definition and Classification.	
	Functions, Deficiencies and Sources.	
	Absorption and Factors affecting absorption.	
UNIT	T – III	
8.	Enzymes	12
	Definition and classification of enzymes	
	Mechanism of enzyme action, Factors affecting enzyme reactions:	
	substrate, temperature, pH activator and inhibitor.	
9.	Intermediary Metabolism	2.
}	Carbohydrates - Glycolysis (aerobic and anaerobic), TCA Cycle,	20
	Electron Transport chain, glycogenesis, glycogeneolysis,	
	gluconeogenesis, blood sugar regulation.	
	Lipids - Beta oxidation and ketosis.	
	Proteins – General reactions of amino acid metabolism: deamination,	
D f	transamination, decarboxylation and urea cycle.	
	rences:  Doulin T.M. (1986) 2nd L.d. Tout Book of Disphamiatry with Clinical Countries.	
1.	Devlin T.M. (1986) 2nd Ed. Text Book of Biochemistry with Clinical Correlation Wiley and Sons	is, John
2	Wiley and Sons.	
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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

Con	tents:	Practical
1.	Qualitative analysis of known mono-saccharides:	03
	(a) Glucose (b) Fructose (c) Galactose	
2.	Qualitative analysis of unknown monosaccharides	01
3.	Qualitative analysis of known disaccharides	03
	(a) Maltose (b) Lactose (c) Sucrose	}
4.	Qualitative analysis of unknown disaccharide	01
5.	Qualitative analysis of known polysaccharides	03
	(a) Starch (b) Dextrin (c) Glycogen	01
ó.	Qualitative analysis of unknown polysaccharides	02
<b>'</b> .	Qualitative analysis of protein – egg albumin and milk protein casein.	02
3.	Qualitative analysis of fat & oil.	01
	Estimation of Moisture content of fresh peas.	01
0.	Estimation of ash content of milk powder.	
1.	Estimation of reducing sugar in honey by Benedict reagent.	01
2.	Estimation of acid value of rancid ground nut oil.	01
3.	Estimation of Iodine value of ground nut oil.	01
4.	Estimation of vitamins in lemon juice by dye method.	01
5.	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.

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# **Examination Scheme**

1. Qualitative analysis of carbohydrate / oil / protein.

15 marks

2. Quantitative analysis (Titration)

15 marks

- Principle (5 marks)
- Method (2 marks)
- Observation and calculation (4 marks)
- Result (4 marks)
- 3. Identification of adulterants

05 marks

4. Viva

05 marks

5. Internal

10 marks



# 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					
Hous	House Interiors & its treatment Hours				
1.	Wall & wall finishes	4			
	Definition & importance				
	• Types of walls				
	<ul> <li>Wall treatments: paints, plaster, panelling, wall papers</li> </ul>				
2.	Floor & floor coverings	4			
	Definition & importance				
	<ul> <li>Types of floor finishes</li> </ul>				
	<ul> <li>Floor coverings</li> </ul>	1			
	Types of floor covering	4			
3.	Ceilings	7			
J.	Definition & importance				
	Types of ceilings				
,	Treatments for ceilings	6			
4.	Door & Window				
	Parts of a door & window				
	Types of doors & windows	,			
5.	Arches	3			
	• Introduction & importance				
	Types of arches	3			
6.	Stairs				
	Introduction & importance				
	Types of states				
UNIT	-11				
	decoration				
7.	Furniture	4			
	Types of furniture				
	• Selection use & care				
- 1	Ergonomic design of furniture	}			
	<ul> <li>Arrangement of furniture in various rooms</li> </ul>				
8.	Using Anthropometria measurements in room for furniture arrangement	4			
	Bed room				
	Drawing room				
	Dining room				
	Children room	4			
9.	Flower decoration	4			
<i>'</i> .	Selection of plant material for				
	• Fresh arrange of				
_	Dry arranger				

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	(a) Pagia aguirmenta	Τ
	(a) Basic equipments	
	<ul><li>(b) Vases and containers</li><li>(c) Type of flower arrangement</li></ul>	
10.	(d) Shaping an arrangement Door and window treatments	4
	(a) Hard	
	(a) Hard (b) Soft	
	(c) Accessories	
11.	Art & Accessories	5
	Selection and use for various rooms:	
	Types of accessories	1
	• Selection	
	• Use	
12.		8
12.	Interior lighting	
1	Light fixture, accessories and protective devices  The self-self-self-self-self-self-self-self-	
	Types & purpose of light for various rooms and various activities	
	Quantity and quality of light available from various sources	!
 	Calculation of lighting requirements in a room	<u> </u>
	T-III	
	hen planning & waste management	
13.	Kitchen as an important unit of house .	3.
	Functions performed in kitchen	
	<ul> <li>Functional design &amp; arrangement of work places.</li> </ul>	6
	Kitchen geometry	U
	<ul> <li>Work heights of different work areas and storage areas</li> </ul>	
	Space dimensions of different work centres and work areas	
	Principles of kitchen planning	8
	Orientation and location of a kitchen	
İ	Size and shape of a kitchen	
	Ventilation, light and socio- economic status of family	
	Cost and aesthetics	
	Storage needs	
j	Works centres and work triangle	ł
	Colour and safety	6
	Material specifications for kitchen	
]	Floor, wall, sink, ceiling and its characteristics	
ļ	Platforms, storage etc.	ļ
	Type of finishes	ļ
	Using Anthropometric measurements in kitchen design	6
1	Storage	
	• Counter	
	Domestic waste management techniques	
	Salvage or manual component separation	8
	- · · · · · · · · · · · · · · · · · · ·	
	Incineration or thermal volume reduction	
	Open dumping     Section 1 Add Silver and add Administration	
1	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	U
	Preparation of a kitchen garden	
	Methods of propagation	
	o Seed propagation	
	<ul> <li>Vegetative propagation</li> </ul>	
	Rotation of crops	
	Time for negotiable sowing	
	Landscape gardening	
	Note: seminar presentation on selected topics from unit I	
	References:	
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	In Kitchen Design, Dept of P.G. studies and research in Home science,	
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INTERIOR SPACE DESIGN (PRACTICAL-X)		
Max Marks: - 50 marks		
Teaching workload: one practical/week (2 hours/practical)		
	l teaching workload: 24 practicals/batch	
Objectives:		
I.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	7
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 treatment
- 7. Drawing of roof, ceiling & Flooring types
- 8. Types of doors & window treatments
- 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.
- 24. Prepare a time chart for different negotiable sowing in kitchen garden.

#### **Examination Scheme**

- 1. Major: Three dimensional Models of rooms and kitchen
- Minor I Drawing of types of door/windows/roofs/ceilings/flooring Minor II Flower arrangement/door or window treatments/lighting
- 3. Internal

25 marks

7 marks

8 marks

10 marks

10 marks

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