

B.Sc. HOME SCIENCE

Semester – III

(Food Science & Nutrition)

MEAL MANAGEMENT

Paper-I

Total Marks – 75

Theory -- 50

Practical -- 15

Internal Assessment -- 10

OBJECTIVES :

- 1) To learn principles of meal planning.
- 2) To understand the role of nutrition in different stages of life cycle.

Theory

Unit-I

Family Meal Management

Recommended Dietary Allowances

Definition, factors affecting RDA, RDA for different nutrients, Indian reference man and woman

Meal Planning

Use and importance of Food value Tables in meal planning

Concept of nutritionally adequate diet and meal planning.

- a) Importance of meal planning.
- b) Factors affecting meal planning.

Nutritional, sociocultural, religious, geographic, economic, availability of time and material resources.

Unit-II

Nutrition through Lifecycle

Nutrition in Pregnancy

Physiological changes during pregnancy, importance of nutrition in pregnancy, diet for the pregnant mother, **complications in pregnancy- gestational diabetes, toxemia, infections.**

Nutrition in Lactation

Nutritional requirements, human milk composition and importance, diet planning.

Unit-III

Nutrition in Infancy

Growth and development, Nutritional requirement, breast feeding, weaning and supplementary foods

Nutrition in Preschool Age and school age

Physiological development and food intake, development of food habits, Nutritional requirement and diet plan

Nutrition in Adolescence

Growth and development, nutritional requirement, factors influencing dietary pattern of the adolescent

Unit – IV

Nutrition during adulthood

Balance diet for Adult Man, Women and for various occupations

- 1) Dietary guidelines for adults over 40 years.
- 2) Nutrition for Mother :

Nutrition in Old Age

Changes during old age, nutritional requirements, diet planning.

Practical

1. Conversion of Weights and volumes of raw foods to cooked food.
2. Weights and Measures – Standard and household measure for raw and cooked food.
3. Meal Planning, for various groups :
 - a) Planning, Calculation and Preparation of a whole days model meal for :
 - Pregnant Woman
 - Lactating Woman
 - Infant (10-12 months)
 - Preschooler (2-6 years)
 - School Child (6-10 years)
 - Adolescent girl / boy (16-18 years)
 - Adult Woman/ Man
 - Old Person (Geriatric)

Planning, Calculation & Preparation of :

- Weaning recipes for infants (any five)

Internal Assessment (Any one of the following)

- 1) Survey of one own diet for a period of three days and food consumption pattern evaluation.
- 2) Visit to Balwadi's or Anganwadi, (ICDS) and write a report.

Books Recommended

- 1) Nutritive value of Indian Foods: Gopalan C, Rama Sastri & Balasubramanian S.C. National Institution Nutrition, 1993.
- 2) Understanding Nutrition: Whitney E.N. & Rolfes S.R. 8th Edition West/Wordsworth 1999.
- 3) Dietetics : B Srilakshami, New Age International (P) Ltd. Publishers 3rd Edition,2000
- 4) Nutrition and Dietetics: Shubhangini A Joshi, Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1992.
- 5) Nutritional Research: Current Scenario and Future Trends Editor: K, Krishnaswamy, Oxford and IBH Publication Co. Pvt., 2000.

Semester-III

HUMAN DEVELOPMENT **[Early Childhood Care & Education]** **Paper-II**

Total Marks -	75
Theory	- 50
Practical	- 15
IA	- 10

Objectives:

- To make students aware of development during childhood.
- To make students aware of preschool and its functioning.

Unit-I: Early Childhood

Characteristics, Developmental tasks, Physical development, Motor development, Speech development, Emotional development, Socialization (play development), Development of understanding, Sex role typing, Family relationships, Personality developments, Hazards. Behaviour problems - Enuresis, Thumb sucking, Stuttering, Stammering, Feeding problems, Temper Tantrums.

Unit-II: Early Childhood Education

Significance of Early Childhood years, need, importance, objectives and goals. Contributions of early childhood educators— Rousseau, Pestalozzi, Froebel, Montessori, Gijjubhai Badheka, Tarabai Modak, Anutai Wagh, types of preschool education.

Unit-III: Curriculum Planning

Factors influencing Curriculum Planning, Routine activities – Free conversation, Storytelling, Music and rhyme, Creative activities, Science experiences, Social studies experiences, Children's literature, Readiness programme, Nature walk, Festivals, Importance of school lunch/snack hour.

Unit-IV: Administration and Organization

An introduction to building and equipment for preschool, Low cost equipments and games without equipment, Essential of records and reports in pre-school, Child Welfare, meaning, National and International organizations, Role and qualities of preschool teacher.

Practicals:

- i) Visit to a nursery school
 - ii) Preparation of teaching aids for nursery teaching – puppets, charts, flash cards, posters etc.
 - iii) Participation in a nursery school – five participations
- Record to be maintained.

Sessional: Assignment on Early Childhood

Books Recommended

- | | |
|---|--|
| 1) Developmental Psychology | Elizabeth Hurlock, 5 th Edition
Tata Mc Graw Hill Publishing Co., New Delhi. |
| 1) Early Childhood Education
(Foundation & Practice) | Dr. G. Pankajam, 1 st Edi.
The Indian Publication |
| Early Childhood Education | J.S. Grewal |

B.SC. II (HOME SCIENCE)
SEMESTER – III
(TEXTILES & CLOTHING)

Textile Design

Paper -III

Total Marks –75
Theory- 50
Internal Assesment- 25

OBJECTIVE

- To study the important textile design, their historical perspective and impact of modernization and their contemporary status.
- To learn about the traditional Indian Textiles
- To learn the culture of India pertaining to the different states.

To impart knowledge regarding the profile of the textile industry of India

UNIT I:

- Classification of Design Methods of creating design on fabric
- Brief introduction to Structural designs by different technique and Surface ornamentation by different techniques Definition of Prints, Classical prints, Floral prints, Stripes Print, Checks Print, Dot Print, Geometrical Print, Directional print, Self print, Computerized Print, Mosaic Marble print, Animal print, , Abstract print, Numerical print, Children's print, Photo print

UNIT II:

- Element of Design:-Space, Point, Line, Colour, Shape, Texture
- Principle of Design:- Emphasis, Harmony, Proportion, Rhythm, Balance.
- Repeats: - Straight Horizontal Repeat and Vertical Repeat, Mirror Repeat and
- Circular Repeat. Half drop horizontal and vertical, $\frac{1}{4}$ drop horizontal and vertical,
- $\frac{3}{4}$ drop horizontal and vertical.

UNIT III:

Woven textiles

- Indian traditional Woven textiles Brief history of these textiles.
- Dobby: - Object of doobby, scope of doobby, different types of doobby.
- Jacquard: - Scope of Jacquard, different types of Jacquard. Jacquard card punching system as per fabric design.
- Non wovens –Types and its manufacturing process and its uses

UNIT IV:

- Traditional textiles of India: Muslins, Dacca Sarees, Chanderi Sarees, Brocade, Bafta/ Ab-i-Rawans, Himrus and Amrus, Patola, Bandhanies, , Kora Silk, Baluchari.
- Uttarpradesh, Haryana and Punjab. Colours and motifs used in these Indian traditional textiles.
- Fundamentals of Embroidery - Techniques and design, Colour combination and uses of different
 - threads. Traditional Embroideries of India: Kantha of Bengal, Embroidery of Gujarat, Kasuti of
- Karnataka, Kashida of Kashmir, Phulkari of Punjab, Chikankari of Uttarpradesh.Chamba of Himachal Pradesh

SESSIONAL

- Illustration in textural techniques for textiles
- Inspirational Drawing- inspirations from nature, seasons, objects, fabrics, nursery prints, traditional designs signs and symbols, surroundings, preparing saree ,dress material ,dupatta ,cushion cover table cloth by using elements of design .
- Rendering effects.
- Different Presentation Techniques- collage work, swatch board,
- stylization, textural effects, etc.
- Medium exploration – making the students familiar with all mediums like,pencils, water colours, poster colours, inks, crayons, dry pastels, etc.
- Preparing an album of different regional embroidery of India- Kantha of Bengal, Embroidery of Gujarat, Kasuti of Karnataka, Kashida of Kashmir, Phulkari of Punjab, Chikankari Uttar Pradesh Chamba of Himachal Pradesh,Manipuri Embroidery

RECOMMENDED BOOKS

1. Folk Embroidery of Himachal Pradesh by Subhashini Aryan
2. Ikat Textile of India by Chetna Desai
3. Indian Painted Textiles by Kamla Dev Chattopadya
4. Carpets of India by Marq
5. Fabric Art heritage of India by Sukla Das
6. Hand Woven Fabric of India by Jasleen Dhamija
7. Indian Sari by Kamla Dev Chattapodya
8. Tie Dyed Textile of India by veronica Muarphy
9. Hand Woven Fabrics of India by Jasleen Dhamija
10. Traditional Indian Textiles by John Gillow
11. Textile Art of India by Kyoto Shoin
12. Hand Painting Textile For the Home by Kaszz Ball and Valcrie
13. Tie Dyed Textiles of India by Murphyd Crill
14. Masterpieces of Indian Textile by Rustam J Meh
Hand book of Textile Design Principles, Process & Practice – Jacquie Wilson
D Knitting Technology by KVP Singh Kalyani Publishers

Library reference:

- Fabric Studies by KVP Singh Kalyani Publishers
- Textiles-fiber to fabric by Bernard P. Corbman McGraw Hill
design Studies By Manmeet Sodhia
- Traditional Indian Textiles by Parul B. Abhishek Publications
- Insiders Guide to South India by Brian Bell APA Publications
- A celebration of style by Sharada Dwivedi AJSK Publications
- Colourful Textiles of Rajasthan by Gulab Kothari Jaipur Printers
- Designing and illustrating apparel- using various textile.
- Designing and illustrating soft furnishing - using various textile.

B.Sc. II (Home Science)
Semester III
Resource Management
(Housing and Home Furnishing)
Paper – IV

Total Marks - 75
Theory - 50
Practical - 15
Internal Assessment -10

Objectives :-

- 1 To develop understanding regarding housing needs , Principles , Planning of house
- 2 To experiment with space , Preparing house plans .
- 3 To develop graphic skills to express ideas in design, forms, knowledge of landscaping and economic use of space.

COURSE CONTENT:

Theory

- Unit I**
- a) Concept of Housing
 - b) Importance of house
 - c) Choice of site - (i) Physical features (ii) Type of soil (iii) Hygienic Conditions (iv) Practical convenience (v) Lawful (vi) Economy
 - d) Principles of house planning - (i) Orientation (ii) Aspect (iii) Prospect (iv) Privacy (v) Grouping (vi) Roominess (vii) Furniture (viii) Sanitation (ix) Circulation (x) Economy
 - e) Building by Laws- (i) Residential zone (ii) Industrial zone (iii) Agricultural zone
 - f) Different symbol used in house plans

- Unit II**
- a) Factors affecting house planning: (i) Income (ii) Occupation (iii) Size of the family (iv) Socio-economic status of the family
 - b) Study of various rooms in the house with respect to:
 - (i) Living area: (a) Verandah (b) Drawing room
 - (ii) Sleeping area: (a) Bedroom (b) Guestroom
 - (iii) Service area: (a) Staircase (b) Toilet (c) Dining room (d) Store room (e) Kitchen-Types of kitchen: (a) One wall (b) Two wall (c) U-shape (d) L-shape (f) Storage facility in different rooms

- Unit III**
- a) Different symbols used in house plans
 - b) House plans for different income levels- (i) Higher (ii) Middle (iii) Lower
 - c) Vastushastra- (i) Importance (ii) Placements of rooms (iii) Location of well
(iv) Placements of doors (v) Position and fixing

- Unit IV**
- (a) Bonsai- (i) History (ii) Preparation of soil (iii) Selection of plants
(iv) Potting and repotting (v) Different styles
(vi) Selection of containers (vii) Care
 - (b) landscaping- (i) Importance (ii) How a professional landscape design can enhance home (iii) Selecting landscape plants
(iv) Selecting landscape structures/materials
(v) Installing driveways and walkways (vi) Lighting(Outdoors)
(vii) Garden ornaments

COURSE CONTENT:

Practicals

Total Marks -	15
Floor Plans-	04
Draw Kitchens-	04
Landscape Drawing-	04
Record Book -	03

Exp No.1: Drawing of Architectural symbols for house Plan.

Exp No.2: Drawing of floor Plan for low income group.

Exp No.3: Drawing of Floor Plan for middle income group.

Exp No.4: Drawing of Floor Plan for high income group.

Exp No.5: Draw one wall kitchen.

Exp No.6: Draw two wall kitchen.

Exp No.7: Draw 'U' shaped kitchen.

Exp No.8: Draw 'L' shaped kitchen.

Exp No.9: Working drawing of landscape design.

COURSE CONTENT:

Internal Assessment

Marks-10

Accessories in Home Decoration (any two)

- 1) Articles made out of low cost / waste material
 - (a) Fabric painting, oil, water, nib, knife, sand, glass, stain glass etc.
 - (b) Wax work / candles etc.
- 2) Preparation of bonsai.
- 3) Visit to ideal house / ideal kitchen /rock garden.

Books Recommended:

1. Agan T. C. – ‘The House’ Oxford and I. B. H. publishing Co.
2. Ann Reilly; Susan A. Roth – ‘The Home Landscape’ , Home planners Inco. Tucson, Arizona.
3. Deshpande R. S. – ‘Modern Indian Homes in India’ , United Book Corporation, Poona, 2nd Edition.
4. Deshpande R. S. – ‘Build your own Home’ , United Book Corporation, Poona, 4th Edition.
5. Deshpande R. S. – ‘Low Cost Housing’ , United Book Corporation, Poona, 4th Edition.
6. Goldstin H. / Goldstein V. – ‘ Art in Every day Life’ MacMillan Co., New York, 4th Edition.
7. Pak – Tin & Helan Yeap – ‘Feng Shui – Health Harmony’ B.Jain Publishers Pvt Ltd., New Delhi, 1998.
8. Rutt A. – ‘Home Furnishing’ , Wiley Eastern Pvt.Ltd., New Delhi, 2nd Edition.
9. Shrivastav – ‘Remedial Vastu Shastra’ , Manoj Publication, Delhi, 2001.

SEMESTER III
(EXTENSION EDUCATION)
EXTENSION LEARNING
Paper -V

THEORY: 50
PRACTICAL: 15
INTERNAL ASSESSMENT: 10

OBJECTIVES:

1. To develop understanding regarding learning process.
2. To understand the techniques of preparing teaching aids.
3. To impart the knowledge of motivation for extension activities.
4. To develop understanding regarding community development & its objectives.

Unit I- Extension learning

Meaning and definition of extension learning, characteristics of extension learners, laws of learning, principles of learning, learning experience, factors affecting learning process, Ideal learning situation.

Unit II- Extension teaching aids

Definitions, classifications of extension teaching aids, audio aids, visual aids, audio-visual aids, projected aids, non-projected aids, guidelines in selection, preparation and uses of teaching aids.

Unit III- Extension motivation

Definitions of motivation, classification of motives, importance of motivation in extension work, basic elements to motivate the homemakers.

Unit IV- Community Development

Meaning and definitions of community development, concept of community development, objectives of community development, principles of community development.

Practicals

- 1) Preparation of flash-cards and presentation of story to provide communication to the group of learners.
- 2) Preparation of chart on home sci. extension aspects for dissemination of knowledge.
- 3) Framing of simple questionnaire to conduct interview method for data collection.

Internal Assessment

To study the factual situation of home makers and submission of report.

References:

- 1.Chandra,A & Shah, A. Non formal education for all, Sterling Publishers Pvt. Ltd. New Delhi.
- 2.Kuppuswamy,B. Communication and social development in India, Sterling Publishers Pvt.Ltd.,New Delhi.
- 3.Singh,R.P. Non formal education-An alternative approach, Sterling Publication Pvt.Ltd.New Delhi.

Semester III
Applied Physiology
Paper VI

THEORY:50
PRACTICAL:25

Unit 1 :-

- a) Animal cell - Structure and function of each cell organelles.
- b) Tissue - Structure and function of different types of tissue.

Unit 2 :-

- a) Locomotor system - Various types of bones and their functions.
- b) Digestive system - Alimentary canal -its structure and functions, Accessory digestive glands.

Unit 3 :-

- a) Excretory system- Different organs of Excretory system , Structure and functions.
- b) Mechanism of Urine Formation.

Unit 4 :-

- a) Skin and Eye as Sense Organs.
- b) Ear , Nose and Tongue .

Practicals

Marks -25

Distribution : -

Experiment -07

Spotting - 08

Viva-voce - 05

Record - 05

1. Identification of Bones.
2. Study and use of Microscope.
3. Microscopic slides of common organs - lungs, artery , vein , liver, kidney, testis, ovary, salivary gland.
4. To examine the blood group and Rh factor.

References / Books Recommended

1. Human Physiology - C.C.Chatterjee
2. Anatomy and Physiology for Nurses - Pears
3. Text book of Medical Physiology - A.C. Guyton
4. Foundation of Anatomy and Physiology - Ross and Wilson

B.Sc. (Home Science) Semester- III
Basic Chemistry
Paper VII

Theory : 2 Periods /Wk/(Credits) Theory Marks

Practical : 2 Periods/Wk/(Credits)

Th.Marks : 50

Practical Mks. : 25

Unit-I

Water : Sources, impurities, hard and soft water, hardness, disadvantages of hardness for domestic purpose, domestic methods of purification of water for drinking purpose.

Alloys : Definition, purpose of making alloys, composition and uses of stainless steel, Brass and Hindalium.

Unit- II

Physical Properties of Liquids : Surface tension - Definition, determination of surface tension by Stalagmometer and uses.

Viscosity - Definition, determination of viscosity by Ostwald Viscometer and uses.

Fuels - Definition, classification, characteristics of good fuel, calorific value, composition of LPG, preparation of Gobar gas.

Unit – III

Acids and Bases : General properties of Acid and Base. Arrhenius theory of acid and base, Lowry and Bronsted Concept of acid and base, Strong and weak acids and bases.
pH scale and Buffer solution.

Unit - IV

Colloids : Definition, classification, types of colloidal systems, preparations (dispersion and chemical methods) and properties (Tyndall effect, Brownian movement electrophoresis and electro-osmosis). Knowledge of emulsions and gels with examples

Practicals

1. Determination of Hardness of Water
2. Preparation of colloidal solution of starch.
3. Preparation of Buffer solutions
4. Determination of viscosity of given liquid by Ostwald Viscometer.
5. Determination of surface tension of given liquid by Stalagmometer (Drop number method)

Books Recommended

1. Text Book of Physical Chemistry – Puri and Sharma
2. Text book of Basic Applied chemistry - P.C.Jain and Monica Jain
3. Text Book of Applied Chemistry - T. Jacob