

B.Sc. (Home-Science) PART- I**MARKING SCHEME**

S.No.	Paper No.	Subject	Theory M. Mark	Practical M. Mark	Total	Theory M. Mark	Practical M.Mark
Group I	(A)	Environmental Studies	75	-	100	33	
	(B)	Field work	25				
	(A)	Foundation Course Hindi Language-I	75		75	26	
	(B)	English Language-II	75		75	26	
Group II	(A)	Basic Nutrition	50	25	75	33	09
	(B)	Introduction to Resource Management	50	25	75		09
Group III	(A)	Introduction to Human Development	50	25	75	33	09
	(B)	Textile and Clothing	50	25	75		09
Group IV	(A)	Community Development	50	25	75	33	09
	(B)	Personal Empowerment and Computer Basics	50	25	75		09
Total			700				

DISTRIBUTION OF MARKS IN VARIOUS PRACTICALS

S.No.	Name of the Practical	Total M.	Sessional	Viva	Practical	Marks
1	BASIC NUTRITION	25	05	05	A. Preparation & Presentation) any one Recipe B. Taste	10 05
2	INTRODUCTION TO RESOURCE MENAGEMENT	25	05	05	-	15
3	INTRODUCTION TO HUMAN DEVELOPMENT	25	05	-	A. Preparation of any one article of Baby kit B. Toy or wearing Food of Imm. Chart	10 10
4	TEXTILE & CLOTHING	25	05		A. Drafting B. Stitching C. Weave	05 10 05
5	COMMUNITY DEVELOPMENT	25	10	05	Preparation of Audio-Visual aids	10
6	PERSONAL EMPOWERMENT & COMPUTER BASIC	25	05	05	Computer Practical	15

B.Sc. (Home Science) PART- I
Group – II
Paper –A
BASIC NUTRITION

M.M.50

OBJECTIVE:

- This course will enable the student to understand the functions of food and the role of various nutrients, their requirements and the effects of deficiency and excess (in brief).
- Learn about the structure, composition, nutritional contribution and selection of different foodstuffs,
- Be familiar with the different methods of cooking, their advantages and disadvantages, Develop an ability to improve the nutritional-quality of food.

THEORY

UNIT-I

Concept of Nutrition – Food, Nutrition, Under and Over Nutrition, Health

1. Functions of Food
2. Basic Terminology (Blanching, Marination, in cookery- Caramalization, Seasoning)
3. Methods of Cooking

UNIT-II Nutrients: Macro nutrients

Classification, sources, functions
Recommended Dietary-Allowances
Deficiency and excess (in brief)
Water
Carbohydrates
Fats
Protein
Fiber

UNIT-III Nutrients: Micro nutrients

Calcium
Iron
Magnesium
Zinc
Fluorine
Iodine, Selenium, Copper, Manganese
Fat-soluble vitamins (A,D,E,K)
Water soluble Vitamins (Thiamine, Riboflavin, Niacin, Vitamin C, Folic Acid ,Pyridoxine, Pantothenic acid and vitamin B12)

UNIT-IV Food, Structure Composition Classification and Functions.

- Cereals, Millets and their products
- Pulses, Legumes and their products
- Fruits and Vegetables
- Milk and Milk Products
- Nuts and oil Seeds
- Meat, Fish, Poultry and Eggs
- Tea, Coffee, Cocoa, Chocolate and other beverages
- Condiments and spices.

UNIT-V Improving Nutritional quality of Foods:

- Germination
- Fermentation
- Substitution
- Fortification and Enrichments

REFERENCES:

Robinson, C.H., Lawler, M.R. Chenoweth, W.L and Garwick' A.E. (1986) : Normal and therapeutic Nutrition, 17th Ed., Macmillan Publishing Co.

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Hughes, O. Behnion, M. (1970) : Introductory Foods, 5th Edn., MacMillan Company.

Williams, S.R. (198-9) -.Nutrition and Diet Therapy, 4th Edn., C.V. Mosby Co.

PRACTICAL

OBJECTIVES:

1. To acquire skills in food preparation techniques.
2. To use appropriate methods of cooking for preparation of specific food products.

I

1. Weights and Measures standard and household measures for raw and cooked food.
2. Preparation of two recipes using cooking methods Boiling, Steaming, Baking, Roasting, Frying and Grill

II

Vegetables

- a. Simple salads and sprouting
- b. Curries

III

Fruits

Fruit preparations using fresh and dried fruits.

IV

Milk

- a. Porridges
- b. Curds, paneer and their commonly made preparation.
- c. Milk based simple desserts and puddings – custards, kheer, ice-cream

V

Soups

Basic, clear and cream soups

VI

Peanut chikki, Paushitik ladoo

REFERENCES:

1. Robinson, C.H., Lawler, M.R., Chenoweth, W.L. and Garwick A.E. (.1986) : Normal and Therapeutic Nutrition, 17th Ed., Macmillan Publishing Co.

B.Sc. (HOME SCIENCE) PART- I

Group – II Paper-B

INTRODUCTION TO RESOURCE MANAGEMENT

M.M.50

FOCUS :

This course deals with the management of resources in-the family with particular reference to mobilising all the resources for achieving the family goals. It also deals with the factors motivating management and management applied to specific resources. The course intends to create awareness, appreciation and understanding of environment. The major environmental issues and problems are to be critically analysed for inculcating environmental consciousness among the learners and to help them take individual/ household/community level decision for making the physical environment conducive for . family living. The course content has to be taught at an elementary level.

OBJECTIVES :

1. To create an awareness among the students about, management in the family as well as the other systems.
2. To recognize the importance' of wise use of resources in order to achieve goals.
3. The physical environment and its components and the major issues.
4. The impact of human, activities on environment
5. The action needed for checking environmental threats

THEORY

Unit – I

- 1- Introduction to Resource Management Definitions
- 2- Types of Management
- 3- Advantages of Management Limitation in Management

Unit – II Factors Motivating Management

- 1- Goals – Definition, Types and Utility
- 2- values – Importance, Sources, Classification, Characteristics, Changing values.
- 3- Standards – Conventional and non conventional – qualitative, quantitative, conventional and non conventional.
- 4- Relation between values, goods and standard

Unit – III (1) Resource

- (a) Types of Resources
- (b) Characteristics of Resource
- (c) Factors affecting use of Resources
- (d) Relation to Resources to Management

(2) Decision Making –

- (a) Definitions and Importance
- (b) Steps of Decision
- (c) Factors affecting decision
- (d) Resolving conflicts.

Unit – IV Management Process -

- 1- Meaning, Definition and element of Management process – Planning, Controlling, Organising and evaluation.
- 2- Planning – Importance, Techniques and Types Organisation.
- 3- Controlling – Phases of Controlling, Factors in success of the control steps – suitability, promptness, New decisions, Flexibility
- 4- Supervision – Types of Supervision – Direction and Guidance
- 5- Evaluation – Importance, Types, Techniques of Self evaluation, Evaluation of whole process and management.

Unit – V

Management of Resources -

- (1) Time Management – Tools – Time patterns, Time Cost, Peak Load, Work Curve, Rest Period, Time Norm.
- (2) Energy Management –
 - (a) Introduction, Types, Causes, Symptoms, of fatigue Measures to Relieve. Process of energy management.
- (3) Work Simplification Definition Importance, Techniques – Formal and informal pen and pencil techniques.

PRACTICAL (any six)

- 1 Identify and formulate various types of standard that student can have .
- 2 Identify and formulate five goals that a student will have.
- 3 Identify and formulate various types of decision, write process of decision making.
- 4 To work out minimum and maximum working approach. (Vertical and horizontal)
- 5 Take up a situation trip/function/picnic/party and manage that situation. Write the process of management implementing and report.
- 6 Making time plan for a student (at least for a week) and explain it.
- 7 To develop simplify methods of any work.
- 8 Visit to energy garden.

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B.Sc. (HOME SCIENCE) PART- I
Group – III
Paper- A
INTRODUCTION TO HUMAN DEVELOPMENT

M.M.50

FOCUS:

This is an attempt to guide undergraduate students in understanding of the field of Human Development in a basic way.

A Concious deviation is taken from the stage-wise approach to. the life span so as to make the course more meaningful and to allow for flexibility in understanding human development, as a continuous process. All topics are given a cross-cultural orientation. The major topics covered are : An overview of the field ; factors important for growth and development; different dimensions of development across the life-span namely, physical and motor, cognition, language, socio-emotional and personality and finally relevant issues in human development and social change.

Techers are encouraged to use the points of emphasis mentioned and culturally relevant examples to stimulate thought and participatroty discussion. The use of Video-films is also recommended to suppliement course content and facilitate discussions. This course purports to create awareness and appreciation for the role and functions of marriage and family as basic institutions. The changing trends, the dynamics of adjustment and contemporary problems and issues are to be critically analysed for developing better understanding of needs, adjustment areas and intervention strategies.

OBJECTIVES:

The student will –

1. Acquire knowledge and insights about the dynamics of contemporary marriage and family systems in India.
2. Become acquainted with the concept, goals and areas of adjustment, relationship within the family.
3. Become aware of her changing roles and relationships with the family.
4. Understand the dynamics of families in distress and crisis.
5. To introduce student to the field of human development-concept, dimensions and interrelations
6. To sensitize students to social and cross-culture contexts in human development.
7. To sensitize students to interventions in the field of human development

THEORY

Unit –I An overview on the field of HD

- i what is human development? Why do we need to studyit? defenition of development,ie. family and society, variations across cultures and individual differences inHuman development.
- ii family and child welfare ;**a.** family welfare programme, **b.** childwelfare programme,
- iii Growth and Development
 - a. Understanding growth and development (Definitions)
 - b. General Principles of development.
 - c. Constraints and facilitators in growth and development (influences of heredity and environment)

- Genetic inheritance: (i) fertilization (ii) Number of chromosomes. (iii) the unique third pair determines sex, (iv) genotype and phenotype, (v) sex linked genetic effects.
- Environmental per-requisites: (i) Nutrition, (ii) opportunities.
- Interaction between environment and inheritance: (i) genes provide the predisposition, range and direction of development, (ii) environment determines the extent or limit.
- The beginning of a new life
 - Prenatal development
 - Prenatal influences on the child: biological risks, age of mother, physical characteristics, illness, diet and nutrition, stress and emotional strains environmental hazards.

UNIT-II Physical Development

- The new born physical appearance: size, weight, bodily proportions, sensory capacities i.e. hearing, vision, taste, smell,, touch, temperature and position.
 - Changes in size, shape, muscles and bones, and brain as it continues through : infancy end of infancy,
 - Linking physical and motor development.
- Motor development:** reflexes in infancy; major milestones through end of infancy,
- Physical and motor development can be influenced through : (i) Maturation, (ii) nutrition, (iii) monitoring and healthcare, (iv) stimulation, (v) practice.

UNIT-III Cognitive Development Across the Life Span

- a. Cognitive development
 - The concept of intelligence
 - (A brief introduction to Piaget's theory)introduce stages without much elaboration : sensorimotor stage in infancy concrete operational stage in childhood changes in remembering the reasoning in middle childhood, formal operations in adolescence, fluid and crystallized intelligence in adulthood, declining cognitive abilities in late adulthood and old age.).

The Development of Language Across the Life Span

Language as a form of communication

- Functions of language : expressing wishes, controlling others, interacting with others, expressing individuality, exploring the world, pretending, using language to communicate/share information, understanding our society and culture, reasoning.
- Communicating before language development i.e. the stages of vocalization : undifferentiated crying, differentiated crying, babbling, Imitation of sound, patterned speech.
- Beginning to use language : one or two word utterances; early sentences; telegraphic speech; understanding metaphors, smiles, irony, reflecting on superficial and deeper level meanings of sentences.
- Uses of language; conversational acts (non-verbal) conversational conventions, learning to listen.
- Language development can be influenced through : (i) maturation, (ii) stimulation
- Deviations in language development : in language development : Possible decline of language in the aged, (speech- impairment and disorders to be introduced briefly).

UNIT-IV Socio-emotional Development Across the Life Span

- a. Understanding social and emotional development
- b. Social development :
 - Introduce socialization as an important part of the process of becoming human.
 - Social milestones : beginning with the emergence of the social smile; attachment, separation, anxiety, acquiring sex roles in childhood, induction into occupational roles by adulthood, social isolation and consequences in late adulthood and in the elderly.
 - Patterns and role of parent-child interactions, interactions with siblings and peers; social and cultural interactions through infancy to old age.
- c. Emotional development
 - Emotions serve two adaptive functions : (i) motivating and (ii) communication.
 - Basic emotional reactions (joy, fear, jealousy, anger, sadness, aggressions)
 - Components of emotion : (i) emotions are elicited by the context, (ii) include bodily activity, (iii) emotional expressions are made through facial expressions, bodily movements, vocalization, (iv) labelling emotions. Emotions may be acquired as a result of/by the Influence of
 - (i) internal and external sources, (ii) cognition, (iii) learning and (iv) social reinforcement.
 - Milestones of emotional development through infancy and childhood emotional confusions and adolescence, stability of emotions in adulthood and old age.
 - Emotional problems : (i) depression, (ii) over-activity, (iii) aggression.

Personality Development Across the Life Span

- a. Personality Development
- b. Personality may be influenced by : (a) heredity, (b) environment (parenting styles, peer groups, social interactions, early childhood experiences, life events, support available in a community etc.)
- c. The role of social norms in personality development. Deviant personalities : (juvenile delinquency in childhood and anti-social personalities in adulthood)

UNIT-V **Marriage**

- a. Marriage as an institution : goals, rituals, functions, changes and challenges.
- b. Mate selection : factors influencing, considerations of exogamy and endogamy, changing trends, arranged and personal choice of mates.
- c. Preparation for marriage, social emotional issues, financial concerns and exchanges, guidance and counseling.
- d. Marital adjustment, areas and factors influencing: planned parenthood.

Families with Problems

- a. Families with marital disharmony and disruption, dimension, casual factors.
- b. Families in distress, violence and abuse, dowry victimization, violence against women.

Interventions for Families in Trouble

- a. Counseling premarital and marital
- b. Public awareness and education programmes

PRACTICAL

Production to Human Development and Family Dynamics

1. Visit to a pediatric ward to observe a new born baby and a premature baby.
2. Preparing a growth average height weight chart of five (5) children from one to (1 -3) years.
3. Study of immunization schedule.
4. Survey of parent's regulative awareness about weaning food, toys; clothes.
5. Preparation of body Kit- Baby carry bag, bib, Jhabla.

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B.Sc. (HOME SCIENCE) PART- I

Group – III

Paper- B

TEXTILE AND CLOTHING

M. Marks: 50

FOCUS:

(A) Variety in clothing depends on variety of textiles. Though very few textiles were known to man earlier, presently, he is seeing newer textiles each one superseding to other. Their performance is also varying. It is essential for a student to have some basic knowledge of these textiles to select the right kind of fabric for specific use.

(B) Clothing is important for protection, comfort, personality and growth in relevant age groups. The course should deal with, keeping in view the activities of concerned age group with consideration for safety, ease of care and comfort.

OBJECTIVES:

To enable students to-

1. To acquaint with proper notion regarding choice of fabrics
2. To develop skills in clothing construction
3. To acquaint with different textiles and their performances
4. Impart knowledge on different textiles finishes

THEORY

Unit – I

1. Introduction of the Subject
2. Common Terminologies used in Textile
3. Properties of Textile Fibers

Classification of the textile fibres : History, composition, types, production & properties

- Natural Fiber – Cotton, Linen, Silk, Wool
- Man-Made Fiber – Rayon
- Thermoplastic Fiber – Nylon

Unit – II

1. Study of Yarn
 - Meaning, Yarn Making : Mechanical & Chemical
 - Types – Simple, Complex, Novelty and Textured yarn
 - number , yarn count , Yarn Twist
2. Methods of fabric construction
 - Weaving : Handloom and its parts.
 - Different types of weaves- Plain weaves, Floting weaves, Pile, Jaquard and Leno weaves.
3. Other methods of fabric construction : Felting, Knitting, Crocheting, Braiding & Lacing

Unit – III

1. Finishes : Meaning and purpose
 - Physical finishes : Singeing , Napping ,Brushing ,Shearing, sizing , shrinking , tentaring, Calendaring etc.
 - Chemical finishes : Bleaching & mercerizing

- Special purpose finishes : wrinkle resistance , water resistant & water repellent , Flame retardant , crease resistance , soil resistant etc.
2. Identification of Fabric
 - Appearance test / Microscopic test
 - Burning test / Creasing test
 - Breaking test / Tearing test & Chemical test
 3. Importance of Clothing

Unit – IV

1. Dyes
 - Definition and Classification
 - Different types of dyes : Natural & Synthetic dyes
 - Suitability of various dyes to different fibres
2. Dyeing methods of different stages of processing :
 - Fiber , yarn , piece , union & cross
3. Household method of dyeing
4. Colour fastness
 - Characteristics of colour fastness
 - Fastness to sunlight ,crocking ,perspiration

Unit – V

1. Printing
 - Its significance
 - Methods of printing : Block, Stencil, Screen & Roller printing
 - Advantages and disadvantages of various methods of printing
 - Faults in different printing methods
 - Preparation of printing paste
 - Preparation of cloth for printing
 - After treatment of printed goods
 - Resist dyed - Bandhej of Gujrat and Rajasthan

PRACTICAL

1. Identification of yarn
2. Identification of textile fibres :
 - Visual test / Microscopic test
 - Burning test /Chemical test
3. weaves and their variations :
 - Plain weave / Twill weave
 - Satin & Sateen weave
 - Honeycomb & Birdseye weave
4. Printing
 - Block printing / Screen printing / Stencil printing
5. Tie & dye

6. Simple dyeing of different fabrics
7. Finishing of fabric before dyeing & printing
 - Scouring
 - Bleaching
 - Designing
8. Bleaching & whitening
9. Starching
10. Laundering of cotton, silk, wool and synthetic fabric
10. Batik

B.Sc. (HOME SCIENCE) PART- I

Group – IV

Paper-A

COMMUNITY DEVELOPMENT

M. Marks: 50

FOCUS

The focus of the course is on the evaluation of approaches to community development in general and in our country in particular. The course focuses on the structure of rural and urban communities, the systems comprising of interacting structures and interlocking of these to form the existing society. It will also indicate the relationship of social change to changes in the structures and systems that exist. It is expected to help students to orient themselves to be part of the development process.

OBJECTIVES: To enable students to

1. Be aware of the approaches to development
2. Develop faith in the capacity of the people, to take responsibility for their own development.
3. Understand the existing support structures for development efforts.
4. Understand the role of non Govt organizations in community development.
5. Understand the socio - economic structures and systems that make up the rural and urban communities.
6. Understand the meaning of social change through development plans and programs in the context of the exiting socio-economic structures and systems.
7. Recognise one's own role in the development process.

THEORY

UNIT-I Development:

- a. Definitions, types - large scale and centrally planned and small scale and locally planned.
- b. Goals, the purpose of developmet - processes of development - the input process and social action process.

Historical Perspective of Development Approaches:

- a. The Capitalistic approach.
- b. The welfare approach
- c. The Gandhian approach
- d. The modernisation approach
- e. The institutional and social justice approach

Critical Development Issues :

- a. Massive poverty
- b. Food security

Community Development in India :

- a. Evolution of community development programme in India since Independence.

UNIT-II Support structures and their Functions :

- a. Central Social Welfare Board
- b. State Social Welfare Board
- c. National Level Voluntary Agencies such as CAPART, KVIC.
- d. Elected Panchayats.

Community Development Programme Approaches :

- a. Multi-purpose
- b. Target group
- c. Growth centred
- d. Area
- e. Minimum needs
- f. Antyodaya
- g. Integrated

Home Science and Community Development :

Scope of Home Science Extension for meaningful participation in community development in India

- UNIT-III** (a) **Analysis of Social Relations of Groups Social Stratification -Caste System (Micro/Macro)**
Differential ranking of groups as superior and inferior caste-groups; changes that have taken place/expected; abolition of untouchability, inter-caste collaboration, fusion of sub-castes; impact of reservations; social inequalities - extent of acceptance or opposition.
(4) Community development organization.
(5) Role of audio visual aids in community development.
- UNIT-IV** Poverty Analysis (Micro/Macro) causes of poverty and The number and proportion of poor (in general and with reference to gender in particular) prevalence of hunger and malnutrition, availability and accessibility to drinking water and sanitation facilities, health facilities, clothing and housing facilities, education facilities. Unemployment pattern and indebtedness; causes of poverty and inequalities; programs for poverty alleviation. Poverty line.
Social Relations in Religion and Culture (Micro/Macro)
a. Religions represented - the role of religion in the lives of people.
b. Popular expression of beliefs and attitudes that promote fatalism or confidence in themselves.
c. Religious and cultural customs and organisational patterns that oppose the values of social justice, equality, liberty and solidarity.
- UNIT-V** **Analysis of Social Relation to Environment (Micro/Macro)~**
a. Customs, mores, rules, regulations that are eco-friendly and that are not eco-friendly.
b. Changing patterns of production and consumption-organic farming, soil and water conservation measures, recycling of wastes, use of bio-degradable articles etc., impact of these in the communities
Gender Analysis –
a. The concept of Gender as distinct from sex.
b. The division of labour.
c. Access and control of resource.
d. Changes in the means of gaining access to resources
Approaches and Methods of Socio-Economic Analysis-
a. Rapid Rural Appraisal
b. Participatory Rural Appraisal
c. Surveys, case studies, observation
d. Participant observations.

PRACTICAL

Field Experience in Village(s) / Urban Slums

- a. Practical use of RRA / PRA Methods
- b. Reporting on Socio-economic analysis of the rural / urban community
- c. To select, Plan, preparation .& use of different-audio visual aids., aids, i.e.
Chart - Educational, Tree Chart, Flow.
Chart., Suspense Chart.-
Posters - Cartoons Pemphlets Puppets.
- d. Conduct of survey based on Unit IV & V of Theory Papers, (any two)
- e. Organising group demonstration.

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B.Sc. (HOME- SCIENCE) PART- I
Group – IV
Paper-B
PERSONAL EMPOWERMENT AND COMPUTER BASICS

M. Marks: 50

FOCUS:

This course is designed to create awareness and understanding of the need for empowerment and motivating the student towards higher goals and challenges of self-improvement. The focus is on the adolescent moving towards making choices, developing competencies and skills for handling responsibilities of self-growth and interpersonal relationships in personal and professional spheres. The thrust of this course must be in the Indian context, creating pride in and respect for cultural heritage and values. The teaching approach should be truly a "facilitator"- convinced and committed to the cause of empowerment of youth.

The Purpose of inclusion of this course must be viewed as "offering opportunities, motivation, information and skills" for enhancing the total outlook (perspectives) of the young student particularly girls. Hence the thrust is on development, women and the concept of Home Science education as holistic education with interface (and intergration) of professionalism and qualitative development of individuals and families. The teacher (facilitator) for this course must share such an- outlook and be oriented towards the same to be really effective. Also the typical examination oriented approach should be replaced by promoting dynamism, visionary zeal and motivational ethos in the classroom.

This course is designed to give basic inputs to students on Computers and their functioning and hands-on experience.

The awareness of the basic applications of computers as the tool for education, information and research is to be created and emphasized. The teaching learning process should include demonstrations and hands-on experience for all the students. Individuals, families and community.

OBJECTIVES:

The student will

1. become aware of the need, competencies and skills to be developed for empowerment and be motivated for self improvement/self -enhancement.
2. become aware of the role of empowerment of women from the perspectives of personal and national development;
3. become aware of the interdisciplinarity of Home Science education and its potential for personal and professional enhancement.
4. become sensitized to some pertinent contemporary issues that affect the quality of life of individuals, families and community.
5. know the basics of computers;
6. to be able to use computers for education, information and research.

NOTE :

Practical based and participatory teaching-learning methodology to be utilized : not conventional lectures. Dynamism on the part of the teacher is essential for successful outcome of the course.

THEORY

UNIT-I Personal Growth and Personality Development

(Through exercises, role play, discussions)

- a. The challenge : understanding and managing oneself : being aware of one's strengths and weaknesses.
- b. Personality Development: Factors and influences : emotional and motivational aspects; assertion vs. aggression.
- c. Peer pressures : Issues and management; group conformity and individualism as co-existing aspects.
- d. Conflicts and stresses, simple coping strategies.
- e. Adjustment and readjustment to changing needs and conditions of contemporary society (technological changes, social changes, changes in values)

UNIT-II Empowerment of Women

- a. Women and Development : The personal, familial, societal and national perspectives.
- b. Capacity building for women : Education, decision-making abilities and opportunities, awareness and information on legal and political issues.
- c. Women's organizations and collective strength : Women's action groups, women's participation in development initiatives.
- d. Study and discussion of life histories, case studies of illustrious Indian women from different walks of life (eg. Indira Gandhi, Jhansi ki Rani, Medha Patkar, Kiran Bedi, Vijayalaxmi Pandit, Sudha Chandran, Anutai Wagh, Ha Bhat, Bhanvari Devi)
Brief sketches/ profiles of women's organization and collective and activist efforts to improve the quality of life or tackle issues of concern (e.g. SEWA, Women's co-operatives, WIT).

Note : Students must be sensitized and made aware through assignments to identify and study the contributions of women in their own regional areas as also in the context of national perspectives. Cases of individual and collective / organized women's strengths must be discussed with examples from local / regional / levels. Each student may prepare profiles of one individual and one collective group.

UNIT-III Home Science Education as Empowerment

1. The interdisciplinarity of Home Science Education.
2. The role of Home Science Education for personal growth and professional development.
3. Home Science as holistic education with integration of goals for persons, enhancement and community development.

UNIT-IV Some Significant Contemporary Issues of Concern

- a. Gender issues: inequities and discriminations, biases and stereotypes; myths and facts.
- b. Substance abuse : Why and how to say no.
- c. Healthy Habits : In relation to physique, to studies, to heterosexual interests.
- d. AIDS : Awareness and education.

Note: Teachers/facilitators must be knowledgeable and equip themselves sufficiently; orientations/training sessions for facilitatory

UNIT-V Computer Fundamentals :

- a. Overview about computers
- b. Components of a computer
- c. Input/output devices

- d. Secondary storage devices
- e. Number Systems : Decimal, Binary, Octal, Hexadecimal
- f. Representation of information : BCD, EBCDIC, ASCII
- g. Representation of Data : Files, Records, Files
- h. File organization and access
- i. Security and safely of data.
- j. Introduction to Operating Systems.

PRACTICAL

COMPUTER BASICS

1.
 - a. Introduction
 - b. Exploring the Desktop
 - c. Running multiple programmes
 - d. Accessories
 - e. Control Panel
 - f. Managing Documents and Folders
2. **MS Word**
 - a. Starting MS-WORD
 - b. Creating and Formatting a document
 - c. Changing Fonts and Point Size
 - d. Table Creation and operations
 - e. Autocorrect, Auto Text, Spell Check, Thesaurus
 - f. Word Art, inserting objects
 - g. Mail merge, letter, label, envelope
 - h. Page set-up, Page preview
 - i. Printing a document
3. **MS-Excel**
 - a. Starting Excel
 - b. Work Sheet, Cell, Inserting Data into Rows/Columns
 - c. Alignment, Text-wrapping
 - d. Sorting data, Auto sum
 - e. Use of functions, referencing formula cells in other formulae
 - f. Naming cells and ranges, Goal seek
 - g. Generating graphs
 - h. integrating Worksheet, data and charts with WORD
 - i. Creating Hyperlink to a WORD document
 - j. Page set-up, Print Preview, Printing Worksheets.
4. **Internet**
 - a. Genesis and use of Internet
 - b. Software and hardware tequirments for Internet
 - c. Accessing the Internet, Web Page, Unsing a Search Engine, Accessing the Internet from MS-Office applications

REFERENCES:

1. Adair, J. (1992) : The action Cenytrod Loaders, Bombay, Jaico Publishing House.
2. Antony, M.J. (1989) : Women's Rights, New Delhi, Hind Pocket Books Pvt. Ltd.
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**B.Sc. (Home Science) PART- II
MARKING SCHEME**

S.No.	Paper No.	Subject	Theory M. Mark	Practical M. Mark	Total	Theory M. Mark	Practical M.Mark
Group I	(A)	Foundation Course Hindi Language-I	75		75	26	
	(B)		English Language-II	75		75	26
Group II	(A)	Clinical Nutrition & Dietetics	50	25	75	33	09
	(B)		Textiles and Fiber Science	50	25		75
Group III	(A)	Human Physiology & Community Nutrition	50	25	75	33	09
	(B)		Communication Process	50	25		75
Group IV	(A)	Life Span Development	50	25	75	33	09
	(B)		Consumer Economics	50	25		75

DISTRIBUTION OF MARKS IN VARIOUS PRACTICALS

No.	Name of the Practical	Total Marks	Distribution			Marks	
			Session	Viva	Practical		
Group – II A	Clinical Nutrition & Dietetics	25	05	05	Planning	08	
					Cooking + Presentation		07
Group – II B	Textiles and Fiber Science	25	05	05	Stain Removal	05	
					Tie & Dye		05
					Printing		05
Group – III A	Human Physiology & Community Nutrition	25	05	05	Spotting Blood Practicals	10 05	
Group – III B	Communication Process	25	05	05	Preparation of Audio Visual Aids - 2	15	
Group – IV A	Life Span Development	25	05	05	Practical	15	
Group – IV B	Consumer Economics	25	05	05	Practical	15	

B.Sc. (HOME-SCIENCE) PART II
Group –II
Paper - A
CLINICAL NUTRITION & DIETETICS

M. Marks: 50

Focus : The course encompasses the various stages of the life cycle and how nutrition is critical at various stages. It briefly familiarizes students with the role of nutrition in common elements.

Objectives: This course will enable to students to -

1. Understand the concept of an adequate diet and the importance of meal planning.
2. Know the factors affecting the nutrient needs during the life cycle and the RDA-for various age groups.
3. Gain knowledge about dietary management in common ailments.

THEORY

UNIT-I Definition of Health & Nutrition

Dimensions of Health (Physical, Psychological emotional & Spiritual)

Energy Requirements - Factors affecting energy requirements-BMR, Activity, age, climate, diet - induced thermogenesis (SDA physiological conditions.

Concept of nutritionally adequate diet and meal planning

- (a) Importance of meal planning
- (b) Factors affecting meal planning-Nutritional, Socio-cultural, Religious, Geographic, Economic Availability of time.

UNIT-II

Nutrition through the life cycle –

(At different activity and Social economic levels) requirements, nutritional problems, food selection.

- (a) Adulthood
- (b) Pregnancy
- (c) Lactation
- (d) Infancy
- (e) Pre-School . -
- (f) Adolescence
- (g) Old age

UNIT-III Principles of diet therapy

- (A) Modification of normal diet for therapeutic purposes, full diet, soft diet, Fluid diet, Bland diet.
- (B) Energy modification and Nutrition for weight management- Identifying the overweight and obese etiological factors contributing to. Obesity Prevention & treatment, low energy diets.
- (C) Under weight - etiology and assessment.
- (D) High energy diet, Diet for febrile (fever) conditions & surgical condition. Nutritional Anemia
- (E) Fevers – Typhoid

UNIT-IV

Etiology, Symptoms & diet management of the following -Diarrhea, Constipation, Peptic ulcer, Jaundice, Viral Hepatitis, Cirrhosis, musculoskeletal disease ,Arthritis, Gout.

UNIT-V

Diet in disease of the endocrine –

Pancreas - Diabetes mellitus - classification, symptoms, diagnosis, Dietary care & Nutritional, management of diabetes mellitus. Insulin therapy, Oral Hypoglycemic agents, special dietetic food, sweeteners & sugar substitutes, Diabetic coma, Juvenile Diabetes.

Diseases of the Cardio Vascular system –

Atherosclerosis Etiology & Risk Factors.

Hypertension - Etiology, prevalence Nutritional management & prevention.

Renal diseases - Etiology, characteristic, Symptoms & Dietary management of Glomerulonephritis- Acute & Chronic

REFERENCES:

1. Krause, M.V. and Mohan, L.K. 1986 : Food, Nutrition and Diet Therapy, Alan R. Liss, Saunders Co., London.
2. Passmore, R. and Davidson, S. 1986 : Human Nutrition and Dietetics, Livingstone Publishers.
3. Robinson, OH., Laer, M.R. Chenoweth, W.L. Ganwick, A.E. 1986 : Normal and Therapeutic Nutrition, MacMillan publishing Company, New York.
4. Williams, S.R. 1989 : Nutrition and Diet Therapy, 4th Ed., C.V. Mosby Co.
5. Shils, M.E. Olson, J. A. Shike, M. Eds. 1994 : Modern Nutrition in Health and Disease, 8th edn., Lea and Febiger a Waverly Company.

Group-II, Practical-A

1. **Planning- Preparation of Normal and Therapeutic diet in relation to special and nutrient requirements (Any 15)**
 - 1 Adult
 - 2 Pregnancy
 - 3 Lactation
 - 4 Constipation
 - 5 Diarrhea
 - 6 Obesity
 - 7 Underweight
 - 8 Peptic Ulcer
 - 9 Jaundice
 - 10 Viral Hepatitis
 - 11 Cirrhosis
 - 12 Acute glomerulonephritis
 - 13 Chronic glomerule nephritis
 - 14 Diabetes mellitus (**using food exchange list**)
 - (i) With Insulin
 - (ii) Without insulin
 - 15 Hypertension(Atherosclerosis)
 - 16 Anemia
2. **Standardization of recipes**

B.Sc. (HOME-SCIENCE) PART II
Group –II
Paper - B
TEXTILE AND FIBRE SCIENCE

M. Marks : 50

THEORY

Unit – I

1. Principles of laundry and its methods
2. Equipment for washing :
 - Washing equipment
 - Drying equipment
 - Finishing equipment
 - Storage equipment
3. Cleaning materials and Detergents :
 - Soap and detergent
 - Other cleaning agents
4. Water : Composition, Classification, Hardness of water, Methods of removal of hardness

Unit – II

1. Useful suggestions for laundering
2. Washing of different kinds of fabrics : Cotton ,wool ,silk & synthetic
3. Bleach agents and other reagents used in laundry
4. Starch : types and uses
5. Blue : types and uses

Unit – III

1. Dry Cleaning
2. Stain removal : classification and technique of stain removal
3. Disinfection of cloths
4. Care and Storage of fabrics
5. Consumer problems and protections

Unit – IV

1. Equipment and supplies used in clothing construction :
 - Measuring equipment
 - Cutting equipment
 - Stitching equipment
 - Finishing equipment
2. Sewing machine: its parts & function, maintenance of machine , problems faced and remedies.
3. Selection of fabric for dress according to Climate, Age, Occupation, Personality, Occasion, Figure Type, Fashion etc.
4. Wardrobe Planning

Unit – V

1. Tailoring
 - General Principles of clothing construction
 - Taking body measurement for different type of garments

- Interrelationship Of Needles, Thread, Stitch Length, & Fabric
 - Cloth Estimation For Different Garments
 - Drafting & Draping
2. Pattern Making
 - General Instructions For Pattern Making
 - Method
 - Types & Layout
 3. Fitting
 - Fundamentals Of Fitting
 - Problems Area In Fitting
 - Factors Affecting Good Fit

Group-II, Practical-B

Printing - Block, screen, tie & die, stencil printing. -.

1. Stain Removal
2. Laundering of cotton, rayon silk wool & synthetics etc.
3. Bleaching & whitening
4. Starching
5. Care of household linen
6. Simple dyeing of different fabric.
7. Tie and Dye techniques
8. Batik
9. Finishing of fabric before dyeing & printing, Scoring, bleaching, Desizing.

REFERENCES:

Course: Introduction to Fashion Illustration

1. Tate, S.L., Edwards, M.S. 1987 : The complete Book of Fashion Illustration, New York, Harper & Row Publications, 2nd Edn.
2. Allen, Anne & Seaman, Julian : Fashion drawing : basic principles, B.T. Batsford, London, 1993, 108p.
3. Barnes Colin : Fashion Illustration, Macdonald, 1988.
4. Chowdhry, Sonia : A Unique phenomenon : understanding the dynamics of fashion, Clothesline 11 (11) Nov. 1998 p. 75-77
5. Ewing, Elizabeth : History of twentieth century fashion, Elizabeth Ewing, London, 1974, XI, 300P.
6. Ireland John Patrick 1976 : Drawing and Designing Men's Wear, London B.T. Brandford Ltd.

B.Sc. (HOME -SCIENCE) PART -II
Group –III
Paper - A
HUMAN PHYSIOLOGY & COMMUNITY NUTRITION

M. Marks: 50

THEORY

Unit – I An introduction of Physiology and Anatomy

1. Cell – Structure and functions of human cell.
2. Tissues – Classification and structure
3. Cardiovascular System –
 - (a) Blood – Composition & Functions
 - (b) Heart – Structure and Functions
 - (c) Vessels – Structure and Functions of Artery, Veins and Capillaries.

Unit – II Gastrointestinal System :

1. Structure and Functions of various organs of the gastrointestinal tract.
2. Digestion and absorption of food.
Nervous System :
 - (a) Elementary Anatomy of Nervous System
 - (b) Functions of different part of the brain and spinal cord.
 - (c) Autonomic, sympathetic & parasympathetic nervous system.

Unit – III Excretory System :

1. Structure and functions of kidney, bladder, formation of urine.
2. Structure and functions of skin.
3. Regulation of temperature of the body.

Respiratory System :

1. Structure of Lungs.
2. Mechanism of respiration and its regulation.
3. Transportation of Gases

Special Sense Organs :

1. Structure and functions of eye, Ear, Nose, Skin & tongue.

Unit – IV Musculo Skeletal System

1. Types of Muscles and its functions.
2. Skeletal System – Types of Bones.
Reproductive System –
Structure and functions of male & female reproductive organs.

Unit – V Concept and Scope of Community Nutrition :

1. Nutritional problems of the community & implications for public health.
Common Problems in India – Causes (Nutritional and Non Nutritional Problems)
Incidence of Nutritional problems, signs, symptoms & Treatment.
Protein-Energy Malnutrition (PEM)
2. Prophylaxis Programmes to Combat Nutritional Problems in India.

3. Food born disease-

- Food Poisoning
- Food Infections

REFERENCES:

1. Guyton, A.C. Hall, J.E. 1996, Text book of Medical Physiology, 9th Ed. Prism Books (Pvt.) Ltd., Bangalore.
2. Winwood 1988 : Sear's Anatomy and Physiology for nurses, London, Edward Arnold.
3. Wilson 1989 : Anatomy and Physiology in Health and Illness, Edinburgh, Churchill Livingstone.
4. Chatterjee Chandi Charan 1988 : Text book of Medical physiology, London, W.B.
5. Saunder's Co. Verma, V. 1986 : A text book of Practical Botany, Vc;. I to IV, Rastogy Publication.
6. Anderson, D.B. and Mayer, B.S. 1970 : Plant physiology, Van Nostrand Reinhold Company', East West Press Edition.
7. Kochhar, P.L. 1994 : A text book of plant physiology, Atma Ram & Sons, Delhi..
8. Dhama, P.S. 1987 : A text book of Zoology, S. Nagin & Company, Julundhar.
9. K.S. Gopaldaswamy iyengar 1991 : Complete Gardening in India, Bangalore, Gapaldaswamy Parthasarthy.
10. Kochar, S.L. 1981 : Economic. Botany in tropics, Macmillan, India.
11. Hartmann, H. and Kester, D.E. 1993 : Plant Propagation principles and Practice, New Delhi, Prentice Hall of India (Pvt.) Ltd.

Group-III, Practical-A

1. Recording pulse rate.
2. Measurement of Blood Pressure.
3. Preparation of temperature chart.
4. Study of Histological slides of different organs.
5. Visit to one Anaganwadi centre and record the activities conducted by Anaganwadi.
6. Testing of adulterants in common foods (any five).
7. Making report of midday meal programme running at nearby school.

B.Sc. (HOME-SCIENCE) PART- II
Group –III
Paper - B
COMMUNICATION PROCESS

M. Marks: 50

Focus:

The course focuses on the process of communication, especially in development work in rural and urban areas.

Objectives: To enable students to –

1. Understand the process of communication in development work ;
2. Develop skills in the use of methods and media ; and
3. Be sensitive to the interests and needs of the people and the power of the media and methods in catering to these needs and interests.

THEORY

- UNIT-I** Concept of development communication
- Meaning and importance of communication in development
 - The purpose of communication
 - Existing patterns of communication
 - Factors that help or hinder communication
- UNIT-II** Communication Process
- One-way and two-way or interactive communication
 - Gaps in communication or distortions in transmission of message and their causes
 - Importance of two way communication
 - Basis for effective, interactive communication.
 - Attitude of 'respect for others
- UNIT-III** Methods of communication in Development Methods to reach individuals
- Personal conference
 - Interviews
 - House visits
 - Exhibits
 - Methods to reach small groups
 - Illustrated lecture
 - Group discussions
 - Co-operation
- UNIT-IV** Role Plays
- Demonstrations
 - Workshop
 - Camps
 - Radio announcements/programs
 - Newspaper stories
 - Posters
 - Videos, films
 - Television programmes
 - Letters, folders or pamphlets
 - Public meetings

- UNIT-V** Media for development communication
- Folk media Songs Stories Street-theatre
 - Games Arts
 - Puppet play Print media
 - Posters Pamphlets, leaflets
 - Newspapers - articles, stories
 - Periodicals - articles, stories, songs
 - Books
 - Cartoons
 - Audio/Visuals, Audio-Visual Media
 - Audio-tapes, radio broadcasts
 - Slides, pictures, drawings, photographs etc.
 - Videos, telecasts
 - Films-documentary, feature

Group-III, Practical-B

(ANY SIX)

1. Organising group discussion.
2. Organising group demonstration.
3. Preparation & Presentation of Audio visual aids, i.e. Posters, Charts, Cartoons, Models
Puppets.
4. Problem/need identification "of a community.
5. Planning an educational programme.
6. Evaluation of the effectiveness of methods and media.
7. Visit to Radio Station/T.V. Centre/Printing Press.
8. Preparation of Drama based on Social Development

B.Sc. (HOME-SCIENCE) PART- II
Group –IV
Paper - A
LIFE SPON DEVELOPMENT

M. Marks: 50

Focus :

This course covers the entire life span and traces the various developmental stages. Its encompasses in scope development in utero, infancy up to senescence identifying critical concerns in Socio-cultural perspectives.

To develop understanding of various methods and materials, which can be used-while working with children. The emphasis is on promoting creativity and use of different materials *to* allow for optimum development.

Objectives :

To become acquainted with developmental stages from birth to old age.

1. To develop awareness of important aspects of development during the whole life span.
2. To know the reqDon Welers (1974): uirement of infants and fodders and develop skills to create play materials and designing learning experiences.
3. To understand the significance of various creative activities and teachers role in implementry them.

Note : For each of the following stages of development, the-influence and inter-actions of sociocultural and environmental factors needs to be discussed.

THEORY

UNIT-I

1. Life Span development and need to study development through the life cycle. Inter-relationship between the aspects of development.
2. Childhood period (2 to 12 years) - Definition, Characteristics and Developmental tasks. "Review (2-6 yrs to 6-12 yrs) of different developmental areas (Physical, motor, Social, emotional, intellectual.

UNIT-II

Adolescence (13 to 18 years)

1. Definition, Developmental tasks.
2. Physical Development - Puberty, growth, spurts, Primary and Secondary sex characteristics, early and late maturing adolescents.
3. Identity - Definition, body image, positive and negative outcomes (Role confusion, ego-identity)
4. Heightened emotionality- Meaning causes, expression characteristics of emotional maturity, conflict with, authority coping up strategies.
5. Problems - Drug and alcohol abuse, psychological breakdown (Behaviour) STD and AIDS.

UNIT-III

Adulthood (19 to 60 years) and ageing- (Early adulthood 19 to 40 years) Definition and characteristics Development tasks, significance of the period, reponsibilities and adjustment - New family, parenthood, independence, financial matters.

1. Middle Adulthood (41 to 60' years), Definition, physical changes (senses, diseases- Transitation Period.
2. Menopause- Health issues.

3. Stresses in middle age, coping with stress to family.
4. Preparation for retirement.

Late Adulthood and Ageing – Definition.

1. Physiological changes, and health problems.
2. Retirement-effect of retirement on self family, society financial problems faced.
3. Recreational interest of the aged.
4. Issues- Old age homes, loneliness, living in joint family, prolonged illness. (Plan visit to old age homes.)

UNIT-IV

Infancy and Toddlerhood (Emotional Aspect)

1. Importance and ways of meeting child psychological needs to promote feeling of security, trust and acceptance.
Activities according to developments for various age groups
- (A) 0-6 months - Activities for simulating and sessions motor experiences with emphasis on seen, hearing, touching, feeling sensation and movements.
- (B) 7 to 12 months - Integration of experiences involving more than one sense to deeper sensory motor experiences promotic manipulation, concept formation, communication and perceptual divtiminsyion.
- (C) 13 to 24 months - Promotion of co-ordination and control of body movements, gross and fine motor skills. Strengthening concept formation, imagination and communication through language promotion of problem solving, environment to explore and satisfy curiosity and develop confidence.
- (D) 25-36 months - Improvement in body movement and communication skills, social skills concept formation.

UNIT-V

Creativity

- Concept of creativity and highlights of the role of creative expressions in overall development of children.
- Creative expressions, Meaning and definition of creativity expressions.
- Role of teacher in planning and fostering creative expressions.
- Creative expressions.
-

Art Activities

- Painting and graphics
 - (a) Painting with brush, drawing with crayons, chalk, rangoli on floor, finger painting. (Some special characteristics of this medium)
 - (b) Values, materials required, use of substituler from indeigenous materials.
 - (c) Teacher's role in conducting activities.
 - (d) Stages in child art.
- Tearing, cutting, pasting and collage, mural
 - (a) Values, materials requirred and Teacher's role in conducting activities.
 - (b) Development stages.
- Printing
 - (a) Types of printing i.e. block, vegetables, string, leaf, stencils, spray, crumpled paper, different textured surfaces.
 - (b) Values, materials required techniques.

BLOCKS :

- (a) Some special features of this medium.
- (b) Types of blocks : hollow large blocks, unit blocks and small blocks.
- (c) Stages in block play.
- (d) Values, materials and accessories for block play.
- (e) Teacher's role

Other materials

- Sand
 - (a) Characteristics of the medium.
 - (b) Values, materials required and teacher's role.
- Water.
 - (a) Characteristics of the medium.
 - (b) Values, materials required and teacher's role.

Group-IV, Practical-A (ANY TEN)

1. Infancy and Toddlerhood
 1. A file to be prepared to list activities appropriate for age groups - 0-6 months, 7-12 months, 13 to 20 months and 25 to 36 months.
 2. Students be encouraged to observe materials available in the locality, Different types of shops, tailor.
 3. Develop play materials suitable for each age group.
 4. List activities, which can be used for working with different age groups.
 - (a) 0 to 6 months.
 5. Prepare materials and design activities for seeing, hearing touching and feeling.
 6. Sensation and movement for soothing movements and exercises.
 - (b) 7 to 12 months.
 7. Prepare materials and design activities for touching and feeling sensation and movement, and manipulation.
 - (c) 13 to 14 months.
 8. Identify activities for gross motor development and prepare play materials available in the locality.
 9. Prepare play materials and list activities promote manipulation sensory experiences, concepts and language.
 10. Visit to old age homes.
- Art Activities**
 11. A few suggestions are given under each category as guideline students be encouraged to explore experiment with each media and understand the characteristics of each medium.

Samples of each be included in the resource file which each student is expected to maintain along with description of values materials and technique used.
 12. Difficulty level of each activity be considered and decide its suitability for different age groups.
 - Painting and graphics
 - Prepare a variety of brushes from different types of brooms, cotton, wool, strips of cloth, feather etc

Tearing cutting and pasting

13. 3-5 years
Tearing with all fingers, tearing with thumb and two fingers as used in holding pencil, tearing on straight line, curved line.
14. 6-8 years
Tearing circular rings starting from one corner of the page till centre of page, Making designs.
15. 3-5 cutting and pasting
Cutting a design, pasting, please of paper, cloth, sticks leaves collage, mosaic Printing

Printing

16. Printing with strings, leaf, vegetable blocks, stencil printing, thumb," finger, spray painting
17. Keeping coins, leaves with veins below paper and gently colouring with crayon.

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H.W. Mutter, J.D. & Kosmitzki 1998 : Lives Across Cultures, Oston, Allyn & Bacon.
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MC Graw Hill
5. Rice, F.P. 1965 : Human Development : A life. Span Approach, NJ : Prentice Hall.
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B.Sc. (HOME-SCIENCE) PART- II
Group –IV
Paper - B
Consumer Economics

M. Marks: 50

THEORY

- Unit – I** Consumer
- 1- Definition of consumer
 - 2- Consumer rights and responsibility
 - 3- Consumer buying habits convenience goods
 - 4- Factors affecting consumer decision
- Unit – II** Personal income
- (1) Types of income – real, money, psychic, national income, disposable income.
 - (2) Saving and investment
 - (3) Sources of investment
 - (4) Factors affecting savings
 - (5) Ways of selecting investment
- Unit – III** Consumer in the market
- (1) Market- Definition, types of market, functions, channels of distribution.
 - (2) Buying motives – Primary selective, rational emotional and totranages.
Types of Products
Advertisement, Sales, Promotion packing
 - (3) Consumer Buying Problems
 - (1) Adulteration- kinds and identification of adulteration.
 - (2) Faculty weights and measure
 - (3) Pricing
 - (4) Legal – guarantee and warrantee contracts, installment buying
 - (4) Buying process
- Unit – IV** Consumer Protection services
- (1) Organisations
 - (2) Legislation – import laws for consumer protection
 - (3) Consumer representation
Consumer and consumers problems- choice and buying problems of consumer
 - (4) Consumer protective services
 - (1) Indian Standard Institution
 - (2) Educational Institution
 - (3) Consumer Co-operatives
 - (4) Government Agencies Municipality
- Unit – V**
- (1) Consumer Decision making
 - (2) Factors effecting consumer decision in the market
 - (3) Good buy man ship
 - (4) Consumer aides for decision making

Group-IV, Practical- B

- 1- Test for adulteration
- 2- Filling of different types of form to protect consumer
- 3- Filling of form of investment services
- 4- Activity of educate consumer
- 5- Collection of samples of different symbols for helping consumer buying .
- 6- Project preparation in any relevant area.

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- Don Welers (1974) : Who Buys - A study of consumer, (Unit I, IV, VI)
- Sherlekar, S.A. 1984 : Trade Practices and Consumerism, Himalaya Publishing House, (Unit I, VI)
- Sales Management, 5th Edu., Cunniff Boiling, (Unit II, IV)
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- David H. Bangs, Jr. : The Market Planning Guide, 3rd Edu., Galgotra Publications, (Unit IV, VII)
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- Cochrane, W.W. and Bell, C.S. 1958 : The Economics of Consumption, McGraw Hill.
- Conoyer, H.C. and Vailes, R.S. 1951 : Economics of Income and Consumption, Ronald Press.

**B.Sc. (HOME-SCIENCE) PART III
MARKING SCHEME**

Group No.	Paper No.	Subject	Theory M. Mark	Practical M. Mark	Theory M. Mark	Practical M. Mark
I	(A)	Foundation Course Hindi Language	75		26	
	(B)	English Language	75		26	
II	(A)	Nutritional Biochemistry	50	25	33	09
	(B)	Food Preservation	50	25		09
III	(A)	Early Childhood Education	50	25	33	09
	(B)	Extension Education	50	25		09
IV	(A)	Foundation of Art and Design	50	25	33	09
	(B)	Apparel Making & Fashion Designing	50	25		09

DISTRIBUTION OF MARKS IN VARIOUS PRACTICAL

S.No.	Name of the Practical	Total Mark	Distribution			
			Sessi.	Viva		Marks
1	Nutritional Biochemistry	25	5	5	Titration, Identification of CHO, Blood	10 05
2	Food Preservation	25	5	5	Preparation Presentation	10 05
3	Early Childhood Education	25	5	5	Preparation Teaching	05 10
4	Extension Education	25	5	5	Practical – (2)	15
5	Foundation of Art & Design	25	5	5	Practical – (2)	15
6	Apparel Making	25	5	-	Stitching or Designing	10

B.Sc. (HOME-SCIENCE) PART- III
Group –II
Paper - A
NUTRITIONAL BIOCHEMISTRY

M. Marks: 50

THEORY

UNIT-I

- (A) Introduction to Biochemistry - definition, objectives, scope and interrelationship between Biochemistry and other biological sciences.
- (B) Carbohydrates - Definition, classifications functions and properties of
- Monosaccharides - Glucose, Fructose, Galactose
 - Disaccharides - Maltose, Lactose, Sucrose
 - Polysaccharides - Dextrin, Starch, Glycogen
- Glycolysis, Gluconeogenesis, Glycogenesis
Glycogenolysis, Citric acid Cycle.
Blood sugar regulation.

UNIT-II

- (A) Lipids – Definition, composition, importance and classification
Fatty acids - Functions, properties ,classification of MUFA and PUFA.
Significance of Acid value, Iodine value and saponification value.
Chemistry and function of Phospholipids, Glycolipids and sterols.
Metabolism - Beta Oxidation
- (B) Aspects of transport – Passive diffusion, Facilitated diffusion, Active transport

UNIT-III

- (A) Proteins - Definition composition function, and classification.
Amino acids - Essential and Nonessential
Metabolism - Urea cycle, Nitrogen balance, Amino acid pool
- (B) Enzymes - Definition, properties, classification, Mode of action of enzymes, factors affecting velocity of enzyme catalyzed reactions, coenzymes.

UNIT- IV

- (A) Harmones - Biological roles of harmones of Pituitary, Adrenal cortex and medull, Thyroid, Parathyroid, Pancreas, Sex glands.
- (B) Urine - Formation and Composition

UNIT-V

- (A) Blood – Blood composition & its Function, Blood Coagulation, Blood Groups
(B) Nucleic Acid and Nucleoproteins – Chemistry, composition, structure, functions

Practical

Nutritional biochemistry

1. Identification of Glucose, Fructose, Maltose, Lactose, Sucrose, Starch.
2. Colour and precipitation reactions of Protein.
3. Estimation of Glucose by Benedict's method.
4. Estimation of Haemoglobin by acid haemolysis method.
5. Estimation of Glycine by Titration.
6. Estimation of ascorbic acid by idometric method.
7. Visit to pathological lab (**compulsory**) to study the
 - Method of collection of sample
 - Application of latest techniques
 - Processing of sample
 - Use of reference values of blood and urine

B.Sc. (HOME-SCIENCE) PART -III
Group –II
Paper - B

FOOD PRESERVATION

M. Marks: 50

THEORY

UNIT- I

Food and its preservation.
Home and community level including commercial operations.
Principles of food Preservation
Causes of spoilage of food.

Unit - II

- Food Storage – Principles and Methods
 - Fresh Foods – Fruits & Vegetables
 - Dried Foods – Rice, Wheat & Pulses
- Canning of Foods**
- Definition and Principles of Canning
 - Nutritive value of Canned Foods

UNIT-III

Pasteurisation

Effect on food quality.
Storage of pasteurised food.

Drying & Dehydration

Methods used and effect on food quality. Types of driers. Storage and deterioration of dehydrated food products.

UNIT-IV

Use of low temperature

Refrigeration and freezing methods, principles and applications. Preparation of foods for freezing influence on food components and structure. Shelf life of frozen foods

Pickling and Fermentation

Pickles, chutneys, ketchups sauces. Fermentation - Types, products and method use
Establishment of a small scale industry / cottage industry.

UNIT-V

Chemical Preservatives

Preparation of Fruit Juices, Squashes, Fruit Syrups, Cordials, Jam Jelly.

High Acid & High Sugar Products –

common defects, Preservation of crystallized and glazed fruits.

Nutritional Implications of food processing

Causes for loss of vitamins and minerals, Enrichment, Restoration and Fortification

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6. Stryer, L. '1995 : Biochemistry, Freeman WH and Co.
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8. Murray, R.K. Granner, D.K. Mayes, P.A. and Rodwell V.W. 1993 : 23rd Ed. Harper's Biochemistry, Large Medical Book.

Practical

1. Preparation of Jam, Jellies marmalades.
2. Preparation of Pickles & chutneys.
3. Dehydration of Vegetables & Fruits.
4. Preparation of Papad, Badi, Chips
5. Preparation of synthetic syrups & squashes.
6. Survey of market products and packaging

B.Sc. (HOME-SCIENCE) PART- III
Group –III
Paper - A
EARLY CHILDHOOD EDUCATION

M. Marks: 50

FOCUS-

The course focuses on need to provide various early childhood care and educational facilities through different programmes, for early childhood education. Types and present status of ECCE programmes are covered in this course. The recent policies affectionary young children are also included.

The course introduces students to the concept of curriculum for all round development of children. The main emphasis is on various components of curriculum to be included in daily program through medium of play. Method of learning by doing which forms the basis for understanding and knowledge is extended to the first two years of primary school.

OBJECTIVES :-

1. To know importance of early childhood care and significance of intervention programmes for early child development.
2. To understand major theoretical approaches and implication for early child development.
3. To become acquainted with current policies and programs in ECCE.
4. To meaning of curriculum and various components to be included in the daily programmes to promote all round development of children.
5. To recognize role of play in children's development.
6. To understand goals, principles, factors and approaches used in programme planning.
7. To recognize the advantages of project method and learn to use integrated approach in the development of daily programme.

THEORY

UNIT-I

Significance and objectives of early childhood care and education.

1. Significance of early childhood years in individuals development.
2. Meaning and need for intervention programmes for better growth and development.
3. Objectives of ECCE.
4. Different types of programs currently offered. Objectives of the program routine and target group covered by each of the following. ECE programme - Balwadi, anganwadi, Nursery school, Kindergarten, Montessori, laboratory nursery school ECCE Program - ICDS and mobile cretch. Play group : day care.

UNIT-II

Current Status and Expansion of Scope of ECE to ECCE

- Expansion from ECE to ECCE.
- Current Status of ECCE programme.
- Admission tests and effects on children.
- Effects of pressures on young children due to formal education.
- Need for ECCE programmes to provide quality care where mothers are at work.
- Global perspective - views of educationists - Froebel, Mac Millan sister, Deweu and Montessori,
- ECE in India : Overview of pre.and post independence period.
- Contributions of Ravindranath Tagore, Mohandas Gandhi, Gijubhai Bodheka, Tarabai Modak, Anutai Wagh.

Recent Developments : Policies, Institutions and contributions of NGOs

- National policy on children.

- National policy on education 1986.
- Role of Indian Association of Preschool Education, National Institute of Public Cooperation and Child Development, National Council for Educational Research and Training, SCERT and NGOs.

UNIT-III

- Meaning of curriculum, Foundation of curriculum development.
 - Impact of play as means of development and learning.
 - Developmental stages of play.
 - Types of Play - Solitary play, parallel play, associative play and cooperatives play.
 - Functions of play - play as a means of assessing children's development.
 - Teachers Role in creating environment and Promoting play.
 - Classical theories of play - Surplus energy theory relaxation theory, Pre-exercise & recapitulation theory.
- Programme Planning**
- Approaches to learning : Incidental and planned learning.
 - Principles of programme planning :
 - from known to unknown, simple to complex, concrete to abstract.
 - Balance between individual and group activity, indoor and outdoor play, quiet and active plays, guided and free activities.
 - Factors influencing programme planning.
 - Formal versus non-formal approach in education : advantages and disadvantages.

UNIT-IV Languages

- Goals of language teaching.
- Readiness for reading and writing. Meaning of readiness.
- Factor to be considered for readiness : Age, Vision, Hearing, Physical, emotional, social, experiential background, attention span, finer motor coordination, eye hand coordination, reading from left to right and top to bottom.

Mathematics

- Importance of number and mathematics.
- Number as a language and history of its development.
- Abstract nature of number.
- Mathematical readiness.
- Analysis of prerequisite skill for number classification, comparing, seriation, patterning, counting, shape and space, measurement fractions, vocabulary, numeral operations.
- Operations and relevant rules and properties; subtraction, multiplication and division.
- Two and three dimension shapes, properties, characteristics.

Environmental studies

- Scope of environmental studies.
- Importance and goals of environmental studies.

UNIT-V Project method

- Introduction
- Meaning and advantages of using project method.
- Planning .

Alternative to Home Work

- Disadvantages of learning by role.
- Suitable alternatives such as observations, exploration, experimentation and reporting orally, picture or at. Something related to the concepts covered in class.

Evaluation

- Need for evaluation.
- Formative and summative evaluation.
- Methods of evaluation : Observations.
- Evaluation of daily work, tools for evaluation
- Reporting to parents.

Practical (any four)

1. Plan three activities for children : list objectives, analyst tasks to achieve goals, select and organize instructional and learning materials, teacher's role, preparation of evaluation sheets i.e. check list, rating scale.
2. Prewriting activities.
3. (a) Mathematics
(b) Readiness
(c) Materials for classifying, comparing, seriations, patterning, counting shapes, fractions, list vocabulary related to mathematical concepts.
(d) Material for addition, subtraction, multiplication and divisions.
(e) Graphs.
(f) Experiences for understanding time distance weight, capacity and money.
4. Prepare a lesson for early childhood education.
5. Plan a project based on lessons of first and second standard, plan activities which children can do at home.
6. Visit to nursery school (**compulsory**).

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1. Alder, S., Farrar, C. 1983 : A Curriculum for developing communications skills in the preschool child. Illinois : Thomas Publications.
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6. Jarolimek, J. Foster, C. 1985 : Teaching and learning in the elementary school, New York: Mac Millan.
7. Kaul, V. 1984 : Play as an instrument of-child growth. In play and child development, New Delhi, NIPCCD.
8. Khanna, S. 1992 : Khel Khoj : Ahmedabad : National Institute of Design.
9. Liebeck, P. How children learn mathematics. London : Penguin.
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13. Robinson, H. 1983 : Exploring teaching London : Allyn and Bacon.
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B.Sc. (HOME-SCIENCE) PART III
Group –III
Paper - B
EXTENSION EDUCATION

M. Marks: 50

THEORY

UNIT-I

1. Concept of Education
 - (a) Meaning of Extension
 - (b) Origin of Extension
2. Extension Education Process
 - (a) Environment for learning
 - (b) Role of educator
 - (c) Role of the people participants
3. Home science extension and community development

UNIT-II

4. Concept of adult / non formal education
 - (a) Meaning
 - (b) Purpose
5. Five Year Plans
 - (a) History of planning in India.
 - (b) Five year plans and their focus.
6. Planning at different levels- National to Grass roots.

UNIT-III

7. Programmes to enhance food production
 - (a) national food production programmes.
8. Poverty alleviation efforts and food security
 - (a) Programmes for poverty alleviation for rural and urban areas.
 - (b) Current programmes for rural and urban poor

UNIT-IV

- 9 Programmes for women and children Women as target groups - specific measures for women and children such as DWCRA, ICDS, IMY. Current programmes for women as initiated and implemented by the different ministeries and departments.
- 10 PMKVY (Pradhan Mantri Kaushal Vikas Yojana).

11 Role of NGOs

Need for participation of Non-Governmental organizations in developmental efforts.
Encouragement given NGO's.

UNIT-V

Advertising Media

12. Different media for advertising.
13. Methods of Extension Education
14. Non-media advertising
15. Outdoor advertisement - Hoardings, Posters, Billboards, Bulletin Boards, Electronic signs, Letterbins, Aerial methods.
16. Transportation media (Mobile Vehicles)
17. Exhibition and Trade fair.

Practical

1. Visits to Radio / T.V. stations.
2. Script writing for Radio.
3. Visit to Extension Education Unit.
4. Write slogan about Adult-Education.
5. Designing an Advertisement for any product with relevant slogan at least two.
6. Study of programme for women as target group and children.

B.Sc. (HOME-SCIENCE) PART -III
Group –IV
Paper - A
Foundation of Art and Design

M. Marks: 50

THEORY

Unit – I Introduction to foundation of art

1. Design, Definition and types : Structural and Decorative
2. Elements of Design :-
 1. Line
 2. Size
 3. Form
 4. Structure
 5. Space
 6. Pattern
 7. Shape
 8. Light – Characteristics and Classifications
 9. Study of Colour – Classifications, Dimensions, Colour Schemes and effect.
3. Principles of design – definition and their characteristics and types :-
 1. Balance
 2. Harmony
 3. Scale
 4. Proportion
 5. Rhythm
 6. Emphasis

Unit – II **1. Indian, regional, traditional and contemporary arts and their use in :-**

1. Floor decoration
 2. Home decoration
 3. Accessories
- 2. Appreciation of art**
1. In terms of principles of art and design
 2. In terms of composition and aesthetic appeal
 3. Flower arrangement material and principles.

Unit – III 1. Family's Housing Needs

1. Protective, economic, affectional, social, standard of living, housing goals, style, function occupation.
2. Factors influencing selection and purchase of site to house building
 - 1- Legal aspects, location, physical feature, soil conditions, cost, services
3. House planning-
 - 1- Reading house plans
 - 2- Planning principles
Grouping of rooms, orientation, circulation, flexibility, privacy spaciousness, services, aestheriucs, economy, light and ventilation.
 - 3- Planning different rooms: living room, bedrooms, kitchen, store room, toilet, passage, staircase.
 - 4- Landscape planning-Principles and application.

UNIT-IV

1. **Financial Considerations :**
 1. Availability of funds for housing
 2. Housing Development finance corporation
 3. Cooperative Housing Society
 4. Life Insurance corporation
 5. Cooperative Banks
 6. Loan from provident fund
 7. Finance corporation of India
2. **Disability of owning versus renting.**
 1. Housing problems, causes and remedial measures.

UNIT-V

1. **Furniture**
 1. Styles of furniture - traditional contemporary and modern.
 2. Selection of furniture for comfort, rest and relaxation for work, for storage
 3. Arrangement of furniture for living. Sleeping, dining and multipurpose rooms.
 4. Upholstered furniture materials, techniques and designs.
2. **Furnishing fabrics**
 1. Types of curtains, draperies, floor coverings rugs and carpets, cushion covers
2. **Selection and use.**
 1. Accessories and their role in interiors.

Practical (Any Eight)

1. Freehand drawing : Memory drawing and sketching.
2. Scale drawing, solid geometry, orthographic.
3. Preparation of colour wheel and colour schemes.
4. Elements of design laws of field size, proportion, types of shadows.
5. Residential space planning - scale, lines, abbreviations, metric projections, defining space by shades, shadows.
6. Lettering.
7. Use of colour for wall/floor decoration and making accessories.
8. Application of design principles in flower arrangement, styles of flower arrangement, innovation of new styles.
9. Gift wrapping and preparing decorative articles of fibre, fabric, coir, bamboo, clay, metal etc.
10. Drawing houseplans with standard specification.
11. Furniture layout of living, dining. Kitchen and bedroom designs presentation with furniture layout, sectional elevation, views.
12. Development of designs and construction of any five of the under mentioned items -'. cushions, curtains, carpets, doormats, rugs, table mates.
13. Wall paintings, picture frame design.
14. Graphic designs.
15. Visit to Art and Craft exhibition

B.Sc. (HOME-SCIENCE) PART- III
Group –IV
Paper - B
APPAREL MAKING & FASHION DESIGNING

Marks : 50

THEORY

Unit – I

1. Anatomy Of Human Body
 - Skeleton & Muscular System
 - Joints Of Human Body
 1. Normal Body
 2. Abnormal Body
1. Figure Problems & Different Types Of Figure Defects
 - Erect, Stooping, Low Shoulder, Square Shoulder, Thin Waist, Stout Waist, Long Body, Short Body, Full Back, Flat Back, Cylindrical, Corpulent, Head Forward, Head Backward
2. Deformity
 1. Natural & Accidental
3. Principle of Figure Drawing
4. Sketching of Different Body Features

Unit – II

1. Drawing Of Human Form In Different Angles
 - Front
 - Back
 - Side
2. Figure Head Theories
 - 8 ½ (Average Figure)
 - 12 ½ (Fashion Figure)
3. Introduction to Elements of Design
 - Color / Line
 - Texture
 - Shapes / forms
4. Principles of Design
 - Proportion
 - Balance
 - Harmony
 - Rhythm
 - Emphasis
5. Different types of Textile design
 - Structural / Decorative
 - Realistic / Abstract
 - Stylized / Geometrical

- Scrawly / Traditional

Unit – III

1. study of colour

- Definition,
- characteristics and
- colour schemes

2. Color Theories

- Prang’s Color Theory
- Munshell’s Color Theory

3. Fashion

- Definition
- Theories
- Fashion Trends In India
- Terms Related To Fashion Industry
- Factors Affecting Fashion

4. Necklines

- Study of Different types of Necklines
- Variations of Necklines

5. Collars

- Study of Different types of Collars
- Collars above the Necklines (Band Collars)
- Collars below the Necklines (Flat Collars)

Unit – IV

1. Tucks : Different types of Tucks (Pin, Diagonal, Blind, Cross, Spaced, Diamond, Shell, Corded)
2. Pleats : Different types of Pleats (Simple, Knife, Box, Accordion, Kick, Reverse, Inverted Box)
3. Seam & seam finishes
4. Frills & Gathers
5. Yoke : Different types of Yokes (Body, Waist, Hip, Shoulder)
6. Sleeves : Different types of Sleeves (Plain, Puff, Raglan, Kimono, Dolman)
7. Silhouettes

Unit – V

1. Embroidery

- Fundamentals / Techniques
- Design / Color Combination
- Use Of Different Threads / Different Types of Stitches

2. Traditional Embroidery Of India

- Kashida Of Kashmir & Bihar
- Kantha Of Bengal
- Phulkari Of Punjab
- Chikenkari Of Lucknow
- Kasuti Of Karnataka

- Kutch & Kathiyawar Of Gujrat
 - Zari Embroidery
 - Applique Work
3. Entrepreneurship
 - Meaning, Definition, Nature & Types
 - Qualities of a Successful Entrepreneur
 - Factors Affecting the Development of Entrepreneurship
 4. Channels of Distribution : Meaning, Definition, Types & Functions
 5. Salesmanship : Duties & Main Qualities of Successful Salesmanship, Salesmanship & Advertisement.

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7. Littman Connie 1977 : Pattern Making Design, Litton Educational Publishing Inc.
8. Muka A. 1979 : French Touch, Pittsburgh, Wolfson Publishing Co., Inc.

Practical

1. Average Figure (8 ½ Head Length)
2. Fashion Figure (12 ½ Head Length)
3. Sketching of different Body Features & Different Hair Styles
4. Preparation of Samples of different types of Necklines
5. Preparation of Samples of different types of Collars
6. Preparation of Samples of different types of Sleeves
7. Preparation of Samples of different types of Yokes
8. Preparation of Samples of different tucks and pleats
9. Construction of Ladies Garment With Different Patterns
 - Frock : A line / short body / long body
 - Petticoat / Blouse,
 - A-Line Kurti / Fitted Kurti / Flared Kurti
 - Simple Salwar / Salwar With Belt / Patiyala / Churidar
10. All samples of traditional embroidery fix in the file
11. Draw design with different colour schemes
12. Reducing and Enlarging a design
13. Draw an objects involving various Elements of design