HOME SCIENCE

B.A./B.Sc. I

Paper-I INTRODUCTION TO RESOURCE MANAGEMENT

UNIT-I

A. Introduction to Home Management

- Purpose of Home Management
- Obstacles to the Improvement of Home management
- Family Characteristics Influencing Home Management
- Factors Motivating Home Management
- Resource in the Family

B. Introduction to Foundation of Art

- Design, Definition and Types : Structural and Decorative
- Elements of Design
 - o Line
 - o Size
 - o Form
 - Structure
 - o Space
 - o Pattern
 - o Shape
 - Light of colours-Classification, Dimensions, Colour schemes and effect.
- Principles of Design-Definition and their Characteristics and Types:
 - o Balance
 - o Harmony
 - o Scale
 - Proportion
 - o Rhythm
 - o Emphasis

Unit-II

- A. Consumer and Consumer Problems
- B. Consumer Decision Making
- C. Consumer Rights and Responsibilities

D. Consumer Protection Law

Unit-III

A. Residential Space Design

- Family's Housing Needs
 - i. Protective, economic, affectional, social standard of living housing goals, style, function, occupation.
- Factors influencing selection and purchase of site for house building.
 - i. Legal aspects, location, physical features, soil conditions, cost, services.
- House Planning
 - i. Reading house plans
 - ii. Grouping of rooms, orientation, circulation, flexibility, privacy, spaciousness services, aesthetics, economy light and ventilation.
 - iii. Planning different rooms : Living rooms, dining room, bedroom, kitchen, store room, toilet, passage, staircase.
 - iv. Landscape planning-principle and application.
- Financial Consideration
 - i. Availability of Funds for Housing.
 - ii. Housing Development finance Corporation.
 - iii. Co-operative Housing Society.
 - iv. Life Insurance Corporation
 - v. Co-operative Provident Fund
 - vi. Finance Corporation of India
 - vii. Disability of Owning Versus Renting
- State and Central Housing Scheme
 - i. Housing problems, causes and remedial measures.

B. Furnishing

- Furniture
 - i. Furniture design based on anthropometric dimensions.
 - ii. Styles of furniture-traditional, contemporary and modern.
 - iii. Selection of furniture for comfort, rest and relaxation for work, for storage.

- iv. Arrangement of furniture for living, sleeping, dining and multipurpose rooms.
- v. Upholstered furniture materials, techniques and designs.
- Furnishing Fabrics
 - i. Types of curtains, draperies, floor coverings, rug and carpets, cushion covers, slip covers, bed linen and table linen.
 - ii. Selection and use.
- Accessories and their Role in Interiors

Unit-IV

A. Kitchen Modular Design

- Kitchen as an important unit of house
 - i. Functions performed in a Kitchen
 - ii. Types of Kitchen
- Principles of Kitchen Planning
 - i. Orientation & location of a Kitchen
 - ii. Size & shape of a Kitchen
 - iii. Ventilation & light
 - iv. Socio-economic status of a family
 - v. Types of family
 - vi. Culture and food habits of a family
 - vii. Cost and aesthetics
 - viii. Storage need
 - ix. Work centres and work traingle
 - x. Colour and safety

B. Financial Management

- Family as an economic unit
- Money management
 - i. Definition
 - ii. Sources of money income : wages, salaries, rent, profits, interests, transfer of payments.
 - iii. Contributors to family income
 - iv. Sources of real income : free good and services, money spent in exchange economy, household production.

- v. Regular and irregular income.
- vi. Budget
- vii. Saving and Investments

Practical

Unit-I

- A. Preparation of colour wheel and colour scheme.
- B. Application of design principle in flower arrangement-demonstration.
 Appreciation of Art from the point of view of principles of design composition.
- C. Gift wrapping and preparing decorative articles.
- D. Study of cheques, withdrawal forms, depositing forms and payslips.

Unit-II

- A. Drawing household with standard specifications.
- B. Furniture layout of living, dining, kitchen and bedroom, design presentation with furniture layout. Sectional elevation, views.
- C. Development of designs and construction of any of the under mentioned items-Cushions, curtains, carpets, door mats, rugs, table mats.

Unit-III

A. Planning of different kitchen layouts considering various kitchen sizes.

Unit-IV

- A. Demonstration
 - Pressure Cooker
 - Mixers and blenders
 - Toaster
 - Immersion Heater
 - Electric Kettles and Coffee Percolators
 - Ovens
 - Boilers and Geysers
 - Washing Machine
 - Vaccume cleaner
 - Hair dryer and shaver
 - Irons.

HOME SCIENCE

B.A./B.Sc. I

Paper-II HEALTH, HYGIENE AND SANITATION

UNIT-I

A. Concept of Positive health and physical health.

- Physical Health-regular habits in daily living, exercise, rest eating elimination, clothing, weight, height, breathing, cleaning of the body and different organs.
- Mental Health
- Emotional Health

B. Health centres and Health schemes :

- Primary health centre.
- Maternity and child welfare clinics.
- Maternity and child welfare schemes in the country.
- Family planning schemes and its effect on health.
- Public health activities, immunization and prevention programmes. (Triples vaccine, polio, cholera, Typhoid and hepatitis B).

Unit-II

- A. Definition of hygiene-its application to everyday life.
- B. Personal hygiene.

Care of skin, hair, hands feet, teeth; use of cosmeties and jewellery.

- C. Safe handling of food personal hygiene including unifoummedical cheekgood food handleng habits and training, control and irradication of flies, cockroaches rodends and other pests.
- D. Disinfections

Definition of disinfectant, sanitizer, antiseptic and germicide, common disinfectants use in case of working surface, kitchen equipment, dish washing etc. sterilization of kitchen and service equipment, sanitizing of watering equipment.

Unit-III

A. Care of premises and equipment.

Impervious washable floors and walls. Table tops, floor etc. Good ventilation and lighting, Care of dark corner, crevices and cracks, Garbage disposal – collection, storage and proper disposal from the premises.

B. Storage of food

Techniques of correct storage. Storage temperatures of different commodities to prevent bacterial contamination and spoilage or growth. Pas teurisation of milk butter, cream, cheese, fruit juices, LST and HTST method. Sterilization of milk, water etc.

C. Food borne diseases

Causative agents – bacteria, virus, fungi, insects and rodents. Routes of contamination. Control and prevention.

D. Food adulteration

Food adulteration and public health hazards, Prevailing food standards in India P.F.A., F.P.O, Agmark and B.I.S.

E. Legal administration and quality control - laws relating to food hygiene.

Unit-IV

A. Food Spoilage

Contamination and micro organism in the spoilage of different kind of foods and their prevention. Cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and milk products, canned foods.

B. Public health hazards due to contaminated foods

food borne infection and intoxications – symptoms, mode and sources of transmission and methods of prevention of prevention, Investigation and detection of food borne disease out-break.

PRACTICAL

Unit-I

A. Carrying a sick person on a stretcher, care during shifting, preparation of a bed for the patient.

Unit-II

A. Care as sick person, bed making : care of mouth, sponge bath, use of back rest, application of ice bag, fomentation hot water bag, poultice serving of food, use of bed pan, lenma can prevention of bed sores etc.

Unit-III

- A. Recording of temperature, pulse, respiration and blood pressure.
- B. Administering medicines, maintenance of posture, safety and comfort of the patient.

Unit-IV

A. Disinfecting of room and clothing by different methods.

HOME SCIENCE

B.A./B.Sc. II

Paper-I FUNDAMENTAL OF FOOD AND NUTRITION

UNIT-I

- A. Concept of Nutrition
- **B.** Functions of Food

C. Nutrition : Macro and Micro-nutrients

Classification, sources, functions

Recommended Dietary Allowances

Deficiency and excess (in brief)

- Water
- Carbohydrates
- Fats
- Energy
- Fibre
- Calcium
- Iron
- Magnesium
- Zinc
- Fluorine
- Iodine
- Selenium
- Copper
- Manganese
- Water soluble vitamins (thiamine, Riboflavin, Niacin Vitamin C, Folic Acid, Pyridoxine, Panthothenic Acid, B₁₂)
- Fat-soluble vitamins (A,D,E,K)

Unit-II

- A. Basic Terminology Used in Food Preparation
- B. Food Production (in brief), Food Composition, Structure, nutritional contribution selection factors for the following.
 - Cerals and MIllets
 - Pulses
 - Fruits

- Vegetables
- Milk and Milk products
- Nuts and oilseeds
- Meat, Fish and poultry
- Eggs
- Sugar
- Tea, coffee, Cocoa, chocolate and other beverages
- Condiments and spices
- Processed foods

Unit-III

- A. Methods of Cooking, their Advantages and Disadvantages and Effect on Nutritive Value.
- B. Improving Nutritional Quality of Foods
 - Germination
 - Fermentation
 - Supplementation
 - Substitution
 - Fortification and enrichment

Unit-IV

- A. Brief History of Nutritional Science. Scope of Nutrition
- B. Minimal Nutritional Requirements and RDA Formulation of RDA and Dietary Guidelines-Reference and Reference woman.
- C. Body composition and changes through the life cycle.

HOME SCIENCE

B.A./B.Sc. II

Paper-II INTRODUCTION TO TEXTILES AND CLOTHING

UNIT-I

A. Classification of Textiles

- Introduction and classification of textiles, terminology in textiles.
- History, composition, types, production, properties and use Cotton, Linen, Wool, Silk, Rayon, Polyster and Acrylic fibres.

B. Study of Yarns

• Methods of spinning, making of spinning, making of sewing thread, simple, novelty, metallic and texturised yarns, stretch, corespun, bi and multi com ponent yarns-characteristics. Yarn Numbering systems (Cotton count, Denier, tex-conversion from one to the other).

C. Weaves

- Physical-Singeing, napping, brushing, shearing, sizing, shrinking tendering, calenderings etc.
- Chemical-bleaching, mercerizing, etc.
- Special purpose finishes-wrinkle resistant, water resistant and repellent, flame retardant, durable press soil release and resistant, antipilling dyeing and printing etc.

Unit-II

A. Equipment

• Equipment and supplies used in clothing construction, their maintenance, problems faced, remedies with specific reference to sewing machine.

B. Selection of Fabrics

• Factors influencing selection of fabrics, budget, age, season, occupation, figure, fashion, occasion etc.

C. Principles of Clothing Construction

• General principles of clothing construction. Drafting and making paper patterns. Taking body measurements for different types of garments. Preparation of fabrics for garments making. Laying out of patterns, cutting and marking.

Unit-III

A. Essentials of Children's Clothing

- Importance of clothing
- Psychological effect of clothing on children
- Effect of clothes and child's growth
- Sociological and Psychological aspects of clothing.

B. Children's Clothing

- Factors to be considered while selecting and making children's garments.
- C. Clothing budget.

• Clothing and family budget. Children's clothing in relation to clothing budget.

D. The Infant

- Desirable features in infant's clothing
- Safety and health
- Essential in the layette

E. The Creeping Age

- Functional design for the creeping age
- Garments for the creeping age
- F. The Preschooler

G. School-going child

Unit-IV

A. Experiments and Principles of Design

- Elements and Principles of Design as applied to Apparel designing.
- **B.** Fashion
 - Fashion Trends in fashion and changes

(a) Body Measurement

- Anthropometric measures
- Methods of taking body measurements for different garments.

(b) Silhouettes

• Figure types. Designing for different figure types

C. Pattern Making

• Techniques, Flat pattern, Draping, Principles and application of flat patterns for different styles.

D. Fabrics for Garment making

- Handling of different types of fabrics
- Estimation of material, required for different garments
- Selection of fabrics for different garments

E. Fitting

• Problems and remedies

HOME SCIENCE

B.A./B.Sc. III

Paper-I NUTRITIONAL MANAGEMENT IN HEALTH AND DISEASE

Unit-I

A. Definition of health and nutrition

Dimensions of health (physical, psychological, emotional, spiritual)

- B. Energy Requirements-Factors affecting energy requirements
 BMR, Activity, age, climate, diet-induced themogenesis (SDA), physiological conditions.
- C. Concept of nutritionally; adequate diet and meal planning.
 - Importance of meal planning
 - Factors affecting meal planning
 - i. Nutritional, Socio-cultural, Religious, Geographic, Economic, Availability of time and material resources.

Unit-II

A. Nutrition through the Life Cycle

(at different activity and Socio-economic levels)

requirements, nutritional problems, food selection

- Adulthood
- Pregnancy
- Lactation
- Infancy
- Preschool
- Adolescence
- Old age

Unit-III

A. Basic concepts of diet therapy

Therapeutic adaptations of normal diet, principles and classification of therapeutic diets.

B. Energy Modification and nutritional care for weight management

Identifying the overweight and obese, etiological factors contributing to obesity, prevention and treatment, low energy diets balanced energy reduction and behavioural modification. Underweigh-aetiology and assessment, high energy diets for weight gain, anorexia nervosa and bulimia.

C. Diets for Febrile conditions, Infections and Surgical conditions.

Etiological factors, symptoms, diagnostic test and management of--- Upper GI tract disease, of Oesophagus and dietary management, Diseases of stomach and dietary management, Gastric and duodenal ulcers and dietary management.

Unit-IV

A. Etiology, symptoms, diagnostic tests and management of

Intestinal diseases – Diarrhoea, Steatorrhoea, Diverticular, disease, Inflamatory Bowel disease, Ulcerative Colitis, flatulence, Constipation, Irritable Bowel Syndrome, Haemorrhoids.

B. Etiology, symptoms, diagnostic tests and management of

Malabsorption Syndrome, Celiac sprue, Tropical sprue, Intestinal brush border deficiencies (Acquired Disaccharide Intolerance). Protein losing enteropathy.

C. Anaemias

Pathogenesis and Dietary Management : Nutritional anaemias, Sickle cell Anaemias, Thalassemia, resulting from Acute Haemorrhage.

D. Disease of Liver, Exocrine Pancrease and Biliary system.

Liver function tests and Nutritional care in Liver disease in the context of results. Dietary care and Management in – Viral Hepatitis, Cirrhosis of Liver, hepatic Encephalopathy, Wilson's disease, Dietary care and management in diseases of Gall Bladder and Pancreas. Cholelithiasis. Cholecystits, cholecystitis, cholecystectomy, Pancreatitis etc.

HOME SCIENCE

B.A./B.Sc. III

Paper-II INTRODUCTION TO HUMAN DEVELOPMENT

Unit-I

A. Orientation to Growth and Development

- Understanding growth and development (definition)
- General principles of development
- Constraints and facilitators in growth and development (influence of heredity and environment)

- o Genetic inheritance
 - \circ Fertilization
 - Number of chromosomes
 - The unique third pair determines sex
 - o Genotype and phenotype (v) Sex linked genetic effects
- Environment pre-requisites:
 - o Nutrition
 - Opportunities
- Interaction between environment and inheritance:
 - Genes provide the predisposition, range and direction of development
 - Environment determines the extent or limit.
- The beginning of a new life
 - Prenatal development and the birth process can be covered by a film OR emphasize major development during the three stages of interuterine development and the stages of the birth process.
 - Prenatal influences on the child: biological risks, age of mother, physical character illness, diet and nutrition, stress and emotional strains environmental hazards.
 - Cultural variations in child birth practices.

Unit-II

A. Development of Physical and Motor Abilities Across the Life Span

- Physical Development
 - The new born physical appearance : size, vision, taste, smell, touch, temperature and position.
 - Change in size, shape, muscles and bones and as brain in continues through : infancy, end of infancy preschool middle child hood adolescent growth spurt (include primary and secondary sexual characteristics and psychological impact of adolescence) plateau in adulthood decreasing physical abilities in old age.
 - Linking and motor development

- Motor development : reflexes in infancy, major milestones through end of infancy, preschool years, middle and late childhood, adolescence; plateau in adulthood, declining co-ordination in middle adulthood and old age.
 - Physical and motor development can be influenced through :
 - Maturation
 - o Nutririon
 - Monitoring and health care
 - Stimulation
 - Practice.

B. Cognitive Development Across the life Span

- 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 he reasoning in middle childhood, formal operations in adolescence, fluid and crystallized intelligence in adulthood, declining cognitive abilities in the adulthood and old age.)
- Every day cognition : perception, creativity, imagination, productivity thinking, reasoning.

C. 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 individually, exploring the world, pretending, using language to communicate/share information, understanding our society and culture, reasoning.
- Communication before language development i.e. the stage of vocalization
 undifferentiated crying, differentiated crying, babbling, imitation of sound, patterned speech.
- Beginning to use language : one or two word ulterances : early sentences; telegraphic speech; understanding mataphors, similes, irony, reflecting on superficial and deeper level meanings of sentences.
- Uses of language; conversational act (non-verbal) conversational convention, learning to listen.

- Language is refined through middle, late childhood and puberty; language linked to academic skills cognition and thought.
- Language development can be influenced through :
 - Maturation
 - Stimulation
- Deviations in language development : Possible decline of language in the aged (speech impairment and disorders to be introduced briefly).

D. Socio-emotional Development Across the Life Span

- 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.
 - Pattern and role of parent-child interactions, interactions with siblings and peers; social and cultural interactions through infancy to old age.
- Emotions serve two adaptive functions:
 - Motivating and
 - Communication
- Basic emotional, sadness, aggressions).
 - Emotions are elicited by the context
 - Include bodily activity
 - Emotions expressions are made through facial expressions, bodily movements, vocationalization.
 - o Labeling emotions.
- Emotions may be acquired as result of/by the influence of:
 - o Internal and external source
 - Cognition
 - learning and
 - Social reinforcement

- Milestone of emotional development through infancy and childhood emotional confusions and adolescence, stability of emotions in adulthood and old age.
- Emotional problems:
 - Depression
 - Over-activity
 - Aggression

E. Personality Development Across the Life Span

- What is personality?
- How personality develops across the life span : temperament and sense of self in infancy and childhood, identify development in adolescence, Crystallization of identity by late adolescence and early adulthood stability versus personality change in the adulthood and old age.
- Personality may be influenced by : (a) heredity (b) environment (parenting styles, peer groups, social interaction, early childhood experiences life events, support available in a community etc.)
- The role of social norms in personality development. Deviant personalities (juvenile delinquency in childhood and anti-social person abilities in adulthood).

Unit-III

A. Infancy and Toddlerhood

- Characteristics of human childhood (from state of helplessness to gradual control over body and development of understanding of immediate environment).
- Development through interaction of maturation and stimulation from environment exploration.
- Importance f meeting child's psychological needs to promote feelings of scruity trust and acceptance.

B. Creativity

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

• Creative expressions through a variety of media i.e. painting printing modeling cutting pasting blocks puppetry music movement drama and language.

C. Art Activities

- Painting and Graphics
- Tearing, cutting pasting collage, mural
- Modelling
- Printing
- Blocks

D. Other materials

• Sand

E. Music and Rhythm

• Importance of music in child's life and teacher's in providing appropriate experiences.

F. Communications – Language, Arts

- The unit emphasises role of communication and epxeriences to provided for language development.
- Importance of communication
- Promotion of languages skills, listening, speaking and writing.
- Experiences for language development.
 - Infants and toddlers : sound games, talking, picture, books, simple instructions singing finger plays and experiences.
 - Children from 3-8 years.
- Listening information appreciative and critical or analytical.
- Converting in group
- Picture object discussion
- Reading and story telling
- narration of stories events in proper sequence
- Describing observation

H. Literature for children

- I. Mathematics
- J. Games

Unit-IV

A. The child with special needs

- Definition and terminology relationship of delayed development and disability.
- Incidence and prevalence in India
- The child at risk : poverty and gender issues
- Rights of the disabled child
- Issues in classification and labeling
- Genetic and environment factors in disability
- Prevention of disability
- Early detection, screening, identification and assessment in the community and at Centre-based programmes.
- Need for intervention education and rehabilitation

B. The child with Mental Retardation

- C. The child with sensory deficits
 - Auditory impairment
 - visually impairment
- D. The child with learning difficulties and disability
- E. The child with cerebral palsy and orthopedic disability
- F. The child with behavioural disorders.