

HOME SCIENCE

Course Outline

B.A. Part-I

Paper-I	Physiology/Applied Life Science	30 Marks
Paper-II	Family Resource Management & Housing	30 Marks
Paper-III	Practical	40 Marks
	Total	100 Marks

B.A. Part-II

Paper-I	Food & Nutrition	30 Marks
Paper-II	Child Development	30 Marks
Paper-III	Practical	40 Marks
	Total	100 Marks

B.A. Part-III

Paper-I	Textile and Clothing	50 Marks
Paper-II	Extension Education & Communication	50 Marks
Paper-III	Practical	50 Marks
	Total	150 Marks

Maximum Marks:

B.A. Part- I	100
B.A. Part- II	100
B.A. Part- III	150
Grand Total	350

B.A. Part-I

(Paper-I – Physiology/Applied Life Science)

Unit-I

1. Cell structure, components and their function.
2. Elementary anatomy of various systems.
3. Cardiovascular System
 - Blood and its composition
 - Blood groups
 - Coagulation of blood
 - Structure and function of heart
 - Heart rate, cardiac output
 - Blood pressure and its regulation

Unit-II- Elementary knowledge of the Following:

4. Gastrointestinal System
 - Structure and functions of various organs of the G.I. tract
 - Digestion and absorption of food and role of enzymes and hormones
5. Reproductive System
 - Structure and function of Sex glands and organs including hormones
 - Menstrual Cycle
 - Physiology of pregnancy, parturition, lactation and menopause
6. Muscular-Skeletal System
 - Types of muscles, functions
 - Skeletal System- formation of bone and teeth

Unit-III- Elementary knowledge of the following:

7. Respiratory System
 - Structure of lungs
 - Mechanism of respiration and its regulation
 - O₂ and CO₂ transport in blood
8. Excretory System
 - Structure and function of kidney, bladder, formation of urine, role of kidney in homeostasis
 - Structure and function of skin
 - Regulation of body temperature

9. Nervous System

- Functions of different parts of brain in brief
- Nerve cell and impulse transmission
- Sensory organs

Unit-IV

10. Classification of micro-organisms, molds, yeasts and bacteria, their characteristics

- Useful and pathogenic organisms

11. Sources and reservoirs of infection

- Human reservoir, animal reservoir, non-living reservoir
- Preservation and control of infection and disease
 - a. Controlling the agent, source of reservoir, destroying by heat, drying, with sunlight, chemical disinfectants and antiseptics, removing the agent by filtration
 - b. Preventing the spread of disease
 - c. Protecting the host from infection and diseases – Immunity and immunization schedule
 - d. Common food borne diseases – Diarrhea, Dysentery, Cholera, Typhoid, Infective Hepatitis

12. Common infective diseases: Measles, Tuberculosis, Whooping Cough, Diphtheria, Tetanus, Poliomyelitis and Malaria

B.A. Part I (Home Science)

Paper II: Family Resource Management & Housing

Focus: This course deals with the management of resources in the family particular references for achieving the family goals. It also deals with the family housing needs and interior decoration based on the principles and elements of art.

Objectives:

1. To create an awareness among the students about management in the family as well as the other system.
2. To recognize the importance of wise use of resources in order to achieve goals.
3. To understand the family has needs and factors affecting selection and purchases of site for house building.
4. To understand various elements and principles of art used in the interior decoration.

Unit I- Home Management

1. Definition, Philosophy, Concept and Role of home management.
2. Basic knowledge about home management process; planning, scheduling, execution, controlling and evaluation.
3. Factors motivating management
 - a. Goals- definitions, types, utility.
 - b. Values- importance, classifications, characteristics.
 - c. Standards- definition, classification.
 - d. Decision- role of decision making in management.

Unit – II- Family Resources

1. Human and Non Human Resources- Types, classification, affecting factors.
2. Money management- Income, Expenditure, Supplementary Income , family budget and savings
3. Time and Energy management- organization and work management.
4. Wants- Types, Characteristics and factors affecting wants.
5. Work simplification- methods, work space, storage, equipments

Unit –III- Housing

1. Family housing needs- Protective, economic and social.
2. Factors effecting selection and purchase of site for house building- legal aspects, location, physical features, soil conditions, cost, service.
3. Arrangement of rooms and kitchen.

Unit- IV- Interior Decoration

1. Meaning, Elements and principles of art.
2. Design- Decoration and structural.
3. Color- properties, classification and color schemes.
4. Furniture- types, styles and arrangement.
5. Lighting - types, styles and arrangement.
6. Flower arrangement- types, styles and arrangement
7. Accessories - types, styles and arrangement.

References:

1. Management for Modern Families: Gross and Crandall.
2. Management in Family Living: Nickel and Dorsey.
3. Home Furnishing: A.H.Rutt.
4. Grah Prabandh: Manju Patni.

Practical

1. Floor decoration : Alpana
2. (a) Pot painting or pot decoration
(B) Flower arrangement or flower making
3. Drawing and Labeling of Diagrams of Human Physiology of Unit- I (Paper I).

Viva Voce: Sessional work

1. Preparation of decorative pot
2. Alpana- any two types
3. A chart based on physiology or health aspect.

Marks Allotment:

- Alpana/ floor decoration.
- Pot painting/ pot decoration
- Flower arrangement/ Making
- Labeling of Human Physiology Diagrams
- Sessional work
- Viva Voce

Home Science

B.A. Part-II

(Paper-I – Food and Nutrition)

- Objectives:** This course will enable the student to
1. Understand the functions of food and the role of various nutrients, their requirements and effects of deficiency and excess (in Brief)
 2. Learn about the structure, composition, nutritional contribution and selection of different food stuffs.
 3. Be familiar with the different methods of cooking, their advantages and disadvantages.
 4. Develop an ability to improve the nutritional quality of food.
 5. To get acquainted to the terms like food poisoning and food adulteration.

Unit-I

1. Nutrition and health – definition and inter-relationship
2. Food - Definition, physical and chemical composition of food, functions of food
3. Classification of food according to source and function
4. Structure and function of following foods:
 - a. Fruits and vegetables
 - b. Pulses and legumes
 - c. Cereals
 - d. Milk and milk product
 - e. Eggs, meat, fish and poultry
 - f. Fats and oils.

Unit-II

5. Cooking methods and their effect on nutritive value of foods
6. Methods of enhancing nutritive value of food – germination, fermentation, supplementation and fortification

Unit-III

7. Nutritional aspect of:
 - e. Protein
 - f. Carbohydrate and dietary fiber
 - g. Lipids
 - h. Vitamins

- i. Minerals
- 8. Energy metabolism and basal metabolism rate (BMR)
 - a. Energy value of food
 - b. Factors affecting energy requirement
 - c. Minimum nutritional requirement and RDA, formulation of RDA and Dietary guidelines – reference man and reference women

Unit-IV

- 9. Meal planning- dietary allowances.
 - a. Concept of Balanced diet
 - b. Factors to be considered when planning meals for a family
 - c. Formulation of balanced diet during
 - Infancy
 - Childhood
 - Adolescence
 - Adulthood – including pregnancy and lactation
 - Old age
- 10. Modification of normal diet
 - a. Normal, soft and liquid diet
 - b. Nutrition in common diseases:
 - Fever, typhoid and TB
 - Diarrhea and constipation
 - Obesity

B.A. Part-II

(Paper II - Child Development)

Unit-I

1. Introduction to Child Development
 - a. Definition of Development and Human Development
 - b. Nature and scope of Development
 - c. Need to study of Child Development

2. Growth and Development
 - a. Definitions of Growth and Development
 - b. General principles of Development
 - c. Constraints and facilitators in growth and development (influences of heredity and environment)
 - Genetic inheritance –Fertilization, Number of Chromosomes, Determination of Sex, Genotype and phenotype, Sex linked genetic effects.
 - Environment
 - Interaction between environment and inheritance

Unit-II

3. The beginning of a new life.
 - a. Prenatal Development and the Birth process, types of delivery
 - b. Prenatal influences on the child.

4. Physical and Motor Development –
 - a. Physical development
 - The New Born physical appearance and sensory capacities
 - Changes in size, shape, muscles, bones and brain as it continues through Infancy, Preschool, Middle Childhood, Adolescent growth spurt include primary and secondary sexual characteristics and psychological impact of adolescent.
 - b. Inter-relatedness and coordination between the physical and motor development
 - c. Motor Development: Reflexes in infancy; major milestones through end of infancy, preschool years, middle and late childhood, adolescence.

Unit-III

6. Cognitive development.
 - a. The concept of Intelligence and Cognition
 - b. Factors effecting intelligence and cognitive development
 - c. Play- types, importance of play.

d. Creativity- developing creative skills in children.

7. The development of language

- a. Language as a form of communication –functions of language
- b. Communicating before language development- the stages of vocalization
- c. Speech problems and their remedies.
- d. Influencing factors (i) maturation (ii) stimulation

Unit-IV

8. a. Socio-emotional development

- Socialization
- Factors effecting social development.

b. Emotional development

- Basic emotional reactions – joy, fear, jealousy, anger, sadness and aggression
- Emotional problems- factors effecting emotional development in childhood

B.A. Part-II

(Paper III – Practical:)

1. Weight and measures – their equivalents
2. Dietary calculation using-
 - a. Nutritive value tables
 - b. Basic concept of dietary calculation of important nutrients.
3. Planning, preparation and serving of diet for different socio-economic groups-
 - a. Infant with special reference to weaning period
 - b. Pre-school child
 - c. Children
 - d. Pregnant and lactating women
 - e. Adolescence
4. Preparation of an educational/recreational material for children (age up to 6 years)
5. Sessional work- Diet Planning File & Educational material for children.
6. Viva Voce

HOME SCIENCE

B.A. Part-III

(Paper I – Textile and Clothing)

Focus: Variety in clothing depends on variety in textiles/ 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 a specific use. Clothing is important for protection, comfort, personality and growth in relevant age group.

Objective: To enable students to-

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

Unit-I

1. Introduction to Textiles and classification of textiles fibers.
2. Manufacture and physical, chemical properties and uses of following fabric –
 - Natural – cotton, linen, wool and silk
 - Man made – rayon, polyester and acrylic

Unit-II

3. Construction of Yarn and Classification of Yarns, simple, novelty metallic and texturised yarns
4. Fabric construction methods – felting, braiding, bonding, netting, knitting
5. weaving- different types of weave.

Unit-III

6. Fabric finishes:
 - a. Basic – Singeing, beatling, shearing, sizing, tentering, bleaching, calendaring and mercerizing
 - b. Texturizing – embossing, moiring and napping
 - c. Functional – water resistant and repellent, flame retardant, soil and stain resistant, moth proofing finishes
 - d. Dyeing and printing: types of dyes, general theory of dyeing, tie and dye and batik

- Difference between dyeing and printing, block printing, roller printing, screen printing and stencil printing

Unit-IV

- 7a. factors influencing selection of fabric, budget, age, season, occupation, figure, fashion, etc.
- 7b .General principles of clothing constructions.
- 7c.. Drafting and making paper pattern, layout of the garments.

B.A. Part-III

(Paper II– Extension and Communication)

Unit-I

1. Concept of Extension
 - a. Meaning of extension
 - b. Origin of wider understanding of the meaning of extension
 - c. Principles, scope, limitations
2. Extension worker
 - a. Role of Extension worker
 - b. Qualities
 - c. Training

Unit – II

3. Extension education process
 - a. Environment for learning, role of the educator, role of the people in the Learning and development
 - b. Communication; concept, nature, significance of development communication, communication process.
4. Extension techniques and methods – personal contacts, demonstration, literature, group discussion
5. Audio Visual Aids in Extension
 - a. Classification and importance
 - b. Selection, preparation and effective use of A.V. Aids in extension work

Unit – III

6. Programme planning
 - a. Programme planning cycle and its components
 - b. Designing the project – defining objectives, identifying resources, methods/ approach, feasibility and work plan
 - c. Implementing
 - d. Monitoring and evaluation

Unit – IV

7. Women and Development

- a. Capacity building for women: education, decision making abilities and opportunities, awareness and information on legal and political issues
 - b. Women's organizations and collective strength: Women's action groups, women's participation in development initiative
8. Home Science Education as Empowerment
- a. The inter-disciplinarily of Home Science Education
 - b. The role of Home Science education for Personal Growth and Professional Development

Paper III- Practical:

1. Sewing Machine – its parts and accessories, common defects and remedial measures
2. Drafting, stitching and decoration of following (any Two):
 - Petticoat
 - Baby frock
 - Salwar
 - Kurta
3. Decorative dyeing
 - Tie and dye/ Batik
4. Printing
 - Block printing
 - Screen / stencil printing
5. Preparation and presentation of Audio-Visual Aids
6. Sessional work
7. Viva Voce

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