

**SYLLABUS****HOME SCIENCE PAPER – 1****Unit-I: Food and Nutrition**

1. Definition - Food, Nutrition, Nutrients, Functions of foods & Principal component of food, Food groups.
2. Properties of food, Balanced diet, Food pyramid, cooking methods, Effect of heat on nutrients, Food preservation techniques.
3. Colloidal system & Emulsions in foods.
4. Food pigments & additives, Qualitative evaluation of foods.
5. Classification, Composition & Effect of heat on cereals, pulses, vegetables & fruits, fats & oils sugar, milk, meat & egg.
6. Food Standards, HACCP & Food packaging, Microbiology for safety of food.
7. Menu- Types, points to consider, Budget & Cost analysis, Dietary guidelines for proper nutrition.
8. Food service management of Institutional level- hospital, educational institute, social & special institute, Role of dietician.
9. Macro & micro nutrients - functions, requirement, deficiencies and effect of heat.

**Unit-II: Textiles**

1. Textiles Fibres and Yarns:
  - I. Textile terminologies- fibre, yarn, weave, fabric etc.
  - II. Classification of fibers, Identification of fibres and weaves.
  - III. Manufacturing process of major natural and manmade fibres, properties and their end use.
  - IV. Blended fibres and yarns.
2. Different methods of yarns and fabric constructions:
  - I. Classification of yarns, yarn count, ply and twist.
  - II. Spinning – mechanical and chemical.
  - III. Types of yarns.
  - IV. Basic loom, part and operation, type of looms.
  - V. Different methods of fabric construction: weaving- type of weaves, knitted, braiding, non-woven fabrics, bonding and knotting.
3. Fabric Finishes: Textiles finishes- meaning, objectives, classification, processing and purposes of finishes. Dyeing and printing-classification, method of block printing, tie and dye, batik, roller printing, screen printing, discharge, heat transfer printing and digitized printing. Chemistry of Dyes and Pigments-composition, properties. Affinity towards fibres method of application fixing, after treatment and fastness properties.

4. Traditional Textiles of India: embroidered textiles, printed textiles, woven textiles, dyed textiles of various regions in India. Identification on the basis of fibre content, technique, motif, colour and designed.
5. Textile Testing and Quality Control:
  - I. Textile Testing- need of testing, sampling method, techniques of testing fibres, yarn, fabrics and garments.
  - II. Quality Analysis- weaves, ends, picks, count, weight, thickness, porosity, air permeability, thermal conductivity and dimensional stability.
  - III. Fabric Properties and Analysis- abrasion and colour fastness, crease, recovery, stiffness, drapability, shrinkage, pilling and GSM of fabrics. Labeling- types of labels and purpose.
  - IV. Textile and Environment- banned dyes, eco-friendly textiles, contamination and effluent treatment, Eco-label and eco marks. Recent developments in textiles and apparels- nano textiles, technical textiles, occupational clothing, zero waste designing, up cycling and recycling.

### **Unit-III: Resource Management and Consumer Issues**

1. Management- concept, approaches, management of time, energy, money, space, motivating factors, motivation theories, systems approach of management.
2. Functions of management- planning, supervision, controlling, organizing, evaluation, family life cycle-stages, availability and use of resources.
3. Resources- classification, characteristics, factors affecting use, resource conservation, trends in Resource management.
4. Time management and Energy Management: work simplification techniques, classes of change, fatigue and its management.
5. Decision Making: importance, definition, decision making process, types of decision making.
6. Money management- family income, types, supplementation, budgeting, household accounts, family savings and investment, tax implications.
7. Consumer- definition, role, rights and responsibilities, consumer behavior, consumer problems, education and empowerment.
8. Consumer protection- consumer organization, cooperatives, alternative redressal, standardization, standard marks, quality control, buying aids, consumer legislation.
9. Entrepreneurship- concept, process, barriers, entrepreneurial motivation, challenges, enterprise setting, project planning and appraisal, enterprise management.

### **Unit—IV Human Development**

1. Meaning, definition & importance of Human Development
2. Principles of Development, growth and development, maturation and learning, heredity and environment.
3. Factors affecting Development

4. Prenatal Development- the period of the Zygote, Embryo and Fetus, the “APGAR” scale, Postnatal developments- infancy and babyhood Newborn Reflexes, changes in body size & proportions- Stages of Childhood- Characteristics and Developmental tasks of Childhood, Handedness.
5. ECCE- Need, Importance and Objectives of ECCE. ECCE centre - Kindergarten, Montessori, open type, play school, nursery and Balwadi etc.
6. Adolescence - Definition, stages, characteristics, physical changes, emotional life, socialization, problems and morality.
7. Adulthood, characteristics, changing role and responsibilities in early and middle adulthood.
8. Aging- physical and psychological changes, care and needs.
9. Theories of Human Development and behaviour - Jean Piaget, Kohlberg, Erickson, Freud, Skinner, Watson, Pavlov's theory.

#### **Unit-V: Extension Management and Community Development**

1. Historical perspectives of extension–genesis of extension education and extension systems in India and other countries, objectives of extension education and extension service, philosophy and principles of extension programme development.
2. Programme management- need assessment, situation analysis, planning, organization, implementation, monitoring and evaluation.
3. Extension methods and materials- interpersonal, small and large group methods, audio-visual aids- need, importance, planning, classification, preparation and field testing, use and evaluation of audio-visual materials.
4. Curriculum development and planning for extension education and development activities, Bloom’s taxonomy of educational objectives and learning.
5. Non-Formal, adult and lifelong education-historical perspectives, concept, theories, approaches, scope, methods and materials used, challenges of implementation and evaluation, issues to be addressed.
6. Training, skill development and capacity building for human resource development- methods of training, entrepreneurship development.
7. Community development- concept, approaches, principles, historical perspective of community development in India. Leadership, Support structures for community development- Panchyati Raj Institutions, NGOs and Community based organisations.
8. People’s participation: - concept, meaning, importance and types of peoples’ participation, Historical Prospectives of Community development in India. Participatory Learning and Action (PLA) - methods, techniques and stakeholders’ perspectives.
9. Development programmes in India for urban, rural and tribal population groups- programmes for nutrition, health, education, wage and self employment, women’s development, skill development, sanitation and infrastructure.