

## HOME SCIENCE (864)

### Aims:

1. To develop an understanding of the terms, concepts and principles used in the study of the discipline of Home Science.
2. To develop thought, inquiry, insight and understanding of issues involved in running a home, providing adequate nutrition, meal planning, care of textiles and clothing, budgeting, and family care.
3. To inculcate an appreciation of aesthetic balance, economy and efficiency with regard to home.
4. To foster an understanding of the changes that take place during growth and development of children.
5. To equip an adolescent with the knowledge and skills necessary for management of the self.
6. To foster an understanding of children in difficult circumstances, problems of the elderly and individuals with special needs.

### CLASS XI

There will be two papers in the subject.

**Paper I:** Theory: 3 hours.... 70 Marks

**Paper II:** Practical: 3 hours..... 30 Marks

#### PAPER I -THEORY

There will be one paper of 3 hours duration divided into 2 parts.

**Part I (20 marks)** (Compulsory) will consist of short answer questions covering the entire syllabus.

**Part II (50 marks)** will consist of **eight** questions, which will require detailed answers. Candidates will be required to answer **five** out of **eight** questions.

#### 1. Concept and Scope of Home Science

- (i) Introduction to the five streams in Home Science and how they integrate to form a meaningful whole.

*To explain that Home Science is an umbrella term for a field of Applied Sciences, made up of Foods & Nutrition, Resource Management, Human Development, Textiles & Clothing and Communication & Extension.*

- (ii) Importance and relevance of the study of Home Science.

*The need for studying each aspect of Home Science - enables a scientific understanding of the field and allows for research in the*

*discipline, which reinforces the theoretical perspectives.*

*Immense practical value of the discipline in everyday life - a study of Home Science helps in the ultimate understanding of the self, people and various social, emotional and biological factors necessary for human survival.*

- (iii) Career options in Home Science.

*A brief study on various career options available for Home Science students.*

#### 2. Food and Nutrition

- (i) A review of the relationship between food and health, the importance of a balanced diet for everyday life.

*Classification of food on the basis of nutrients and functions. Functions of food: physiological, psychological and social; assessment of nutritional status and calorie intake on the basis of poverty line.*

*Concept of balanced diet, food and nutritional requirements for family (ICMR tables).*

*Understanding of terms like mortality, morbidity and longevity and their relationship to food.*

- (ii) Elementary study of macro and micro nutrients.

*Functions and sources of nutrients: carbohydrates, proteins, fats, minerals (iron, calcium, iodine and phosphorous) and vitamins (A, D, E, K, B1, B2, Niacin, Folic Acid & C); role of water and fibre in the diet. Recommended Dietary Allowances (RDA) for all nutrients mentioned above. Factors affecting absorption of nutrients by the human body; problems related to under-nutrition and over-nutrition.*

*Basal Metabolic Rate (B.M.R) and the factors affecting B.M.R.*

### 3. Resource Management

- (i) Efficient management of resources – material, human and shared (community).

*Meaning and types of resources: human – time, energy, knowledge, skills, attitudes; material – money, goods, property; shared (community) facilities – schools, parks, hospitals, road transport, water, electricity, fuel. Need to manage resources and methods for maintenance/conservation of shared resources.*

- (ii) Management: need for Management at home. Components of Management; Decision making.

*Understanding the important role that management plays in smooth and efficient running of homes. A brief understanding of the major components of Management – Planning, Organizing, Controlling, Implementing and Evaluation.*

*Role of decision making process in management.*

- (iii) Work simplification.

*Meaning and methods of work simplification.*

- (iv) Savings and investments.

*Importance of savings.*

*Availing schemes for savings and investments offered by banks and other financial institutions (post office, LIC).*

- (v) Fundamentals of banking.

*Opening and operating a bank account, types of cheques, filling a deposit slip, procedure for making a Demand Draft, use of ATM, Debit, Credit cards & availing of student loans.*

### 4. Human Development

- (i) Introduction to the study of Human Development.

*Concept of growth & development; factors affecting growth & development. Influence of sports and physical fitness.*

*Milestones of development from ages 0 to 12 years.*

- (ii) Periods of growth and development during childhood.

*Periods of development during childhood, i.e. - from conception to about 12 years of age. (infancy, early childhood, middle childhood and late childhood).*

- (iii) Philosophy of Human Development.

*The following aspects need to be explained - development is multidimensional and interdisciplinary - includes biological, cognitive, emotional and social development; development is continuous and cumulative; it is variable, reflecting individual variation; cultural differences are reflected in development; both heredity and environment influence development.*

- (iv) Understanding special needs.

*Developing an understanding of normal development, therein developing an understanding of the needs of the differently abled; becoming sensitive to the special needs of the disadvantaged and differently-abled children in terms of social: broken home, juvenile delinquency; economic: living below the poverty line (BPL); physical: partially blind & deaf, affected (e.g. polio), missing limbs and mental handicaps: learning disabilities (slow learners and dyslexics).*

## 5. Textiles and Clothing

### (i) Textile fibres.

*Types of fibres: (i) natural - cotton, silk and wool; (ii) man-made – nylon, polyester and blended fibres (terrycot, terrysilk, terrywool, cotton silk).*

### (ii) Fabric Construction.

*Basic procedure of yarn making (spinning, mechanical spinning, chemical spinning), weaving: plain, twill & satin, other methods – knitting & braiding, non-woven fabrics; effect of weaves on appearance, durability and maintenance of garment.*

### (iii) Textile finishes.

*Meaning and importance; types: (i) basic: scouring, bleaching, stiffening, tantering; (ii) special: mercerization, shrinkage control, water proofing, dyeing and printing.*

## 6. Introduction to Communication and Extension

Methods of communication – individual, group and mass contacts.

*Individual – verbal and written.*

*Group – discussions, demonstrations, fieldtrips.*

*Mass – Print and electronic.*

*Role of audio visual aids in Communication & Extension.*

## PAPER II – PRACTICAL – 30 Marks

Students are required to complete the practicals listed below and maintain a record book for the same.

### 1. Food and nutrition:

- (a) Use 24-hour dietary recall method to analyse individual diet patterns with reference to requirements of basic food groups and RDA. Discuss implications of deficiency.
- (b) Basic Cooking: Boiling, steaming, frying and baking. Preparation of simple snacks using these methods.

### 2. Resource Management –

- (a) Opening of a bank account, filling of cheques, deposit slips, withdrawal slips and demand draft forms.
- (b) Simple home decoration – flower arrangement and floor decoration.

### 3. Textiles and clothing

- (a) Basics of stitching – hemming, running stitch.
- (b) Attaching buttons and hooks.

### 4. Human Development

Visit a nearby nursery school. Observe children at play outdoors and indoors. Record the patterns of play behaviour and the kind of interactions with other children and adults. Talk to the teachers in the school about how they plan activities for young children.