

# HOME SCIENCE (864)

## 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 two 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 streams in Home Science and how they integrate to form a meaningful whole.

*An explanation 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.

*An understanding of how the study of Home Science enables one to understand and develop skills to deal with issues and concerns related to self, family and society.*

- (iii) Career options in Home Science.

*A brief study of the 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.

*Dimensions of health: physical, social, emotional, mental and spiritual.  
Classification of food on the basis of*

*nutrients and functions. Functions of food: physiological, psychological and social.*

*Concept of balanced diet and food groups. Nutritional requirements for different age-groups (ICMR tables).*

- (ii) Study of macro and micro nutrients.

*Sources, functions, Recommended Dietary Allowances (RDA) and deficiency of the following nutrients: carbohydrates, proteins, fats, minerals (iron, calcium, iodine and phosphorous) and vitamins (A, D, E, K, B<sub>1</sub> & C); role of water and fibre in the diet.*

*Basal Metabolic Rate (B.M.R)- definition only.*

#### 3. Storage and Preservation of Food

- (i) Causes of food spoilage.

*Factors contributing to food spoilage: Enzymatic action, moisture, microbial contamination, insects, rodents, improper handling of food.*

- (ii) Storage of foods: Perishable, semi-perishable and non-perishable foods.

*Meaning and examples of perishable, semi-perishable and non-perishable foods; a general idea of storing common foods at home.*

*Convenience foods and their merits and demerits.*

- (iii) Food preservation: Need and importance, principles and methods.

*Need and importance of preserving food (to be done briefly).*

*Principles of food preservation:*

- Use of high and low temperature;*
- Change in pH;*
- Removal of moisture;*
- Use of chemical preservatives (household: salt, sugar, lemon, oil, spices, vinegar; commercial: sodium*

*benzoate and potassium meta bisulphite).*

#### **4. Resource Management**

- (i) Resources: Human, non-human and shared resources.

*Meaning of resources; types of resources: human - time, energy, knowledge, skills, attitudes; non-human - money, goods, property); shared (community) facilities - schools, parks, hospitals, transport, water, electricity, fuel.*

- (ii) Management of Resources: need and importance of Management; Management process; Decision making.

*(a) Role of management in efficient and effective utilization of resources. A brief understanding of the Management process: Planning, Organizing, Implementing, Controlling, and Evaluation.*

*Role of Decision Making in management of resources.*

*(b) Methods of maintenance/ conservation of shared resources.*

- (iii) Time and Energy Management.

*Concept and importance of time and energy management; types of time plans (daily, weekly, monthly, annual); significance of peak load and rest periods; management of time.*

#### **5. Human Development**

- (i) Growth and Development from birth to late childhood.

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

*Milestones of development from birth to late childhood (ages 0 to 12 years).*

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

*Periods of development during childhood from birth to 12 years of age, (infancy, early*

*childhood, middle childhood and late childhood).*

- (iii) Perspectives 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) Personality development.

*Personality: concept; factors affecting personality (environmental and genetic); types and traits of personality.*

#### **6. Care and Maintenance of Textiles**

*Laundrying of cotton, linen, wool, silk, rayon; storage of clothes.*

*Methods of wet cleaning; steps in laundrying and difference in techniques used.*

*Finishing by starching, blueing and use of optical brightening agents and pressing/ironing.*

#### **7. Communication and Extension**

*Methods of Communication: individual, group and mass; social media.*

*Individual: verbal and non-verbal.*

*Group: discussions, fieldtrips.*

*Mass: print and electronic.*

*Social media: meaning, types, advantages and disadvantages.*

## **PAPER II – PRACTICAL – 30 Marks**

Students are required to complete the practicals (any three) 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) Prepare a list of activities routinely performed by you in a day, along with approximate time spent on each activity. Show how you would modify your routine, for most effective utilization of time and energy.
- (b) Make flower arrangements: centre, side.

### **3. Textiles and clothing**

- (a) Basics of stitching – hemming, running stitch, attaching fasteners.
- (b) Laundering of cotton, linen, wool, silk and rayon.
- (c) Removal of stains.
- (d) Designing care label for a garment.

### **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.

### **5. Communication & Extension**

Conduct a survey on the use of Social Media among teenagers on various aspects such as, social network sites used, time spent in a day, frequency of usage, reason for using these social network sites, perceived advantages/disadvantages, etc.