

## 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 contain short answer questions covering the entire syllabus.

***Part II (50 marks)*** will consist of questions, which will require detailed answers. There will be a choice of questions in this part.

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

- (i) Introduction to the four streams in Home Science and how they integrate to form a meaningful whole.
- (ii) Importance and relevance of the study of Home Science.
- (iii) Career options in Home Science.

#### 2. Food and Nutrition

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

(ii) Elementary study of macro and micronutrients.

(iii) Introduction to Enzymes.

(iv) Digestion and absorption of carbohydrates, proteins and fat.

(v) Metabolism of carbohydrates, proteins and fats in the human body.

#### 3. Human Development

- (i) Introduction to the study of Human Development.
- (ii) Periods of Development.
- (iii) Philosophy of Human Development.
- (iv) Understanding special needs.

#### 4. The Home and its Management

- (i) Management: meaning and need for Management at home. Components of Management – Planning, Organising, Controlling, Implementing and Evaluation.
- (ii) Managerial skills for managing a home effectively.
- (iii) Efficient management of resources – material and human.
- (iv) Recycling – its need and relevance.

## 5. Management of Money

- (i) Fundamentals of banking.
- (ii) Importance of budgeting, saving, types of savings.
- (iii) Use of credit in purchase, hire purchase, installment plans.
- (iv) Availing schemes offered.

## 6. Textiles and Clothing

- (i) Textile terminology.
- (ii) Fibres and fabric.
- (iii) Care of fabrics.

## 7. Prenatal development, childbirth and infancy

- (i) Prenatal development.
- (ii) Complications of pregnancy.
- (iii) Labour and delivery.
- (iv) Infancy.

### PAPER II – PRACTICAL – 30 Marks

1. **Resource Management** – any one of the following three assignments, to be done as an individual project, or in groups of two, with assessment of project done at the end of the year. Each student will be expected to – (a) Prepare a scale model with all details laid out. (b) Choose appropriate fabrics for furnishing the layouts designed, keeping in mind characteristics of fabrics, cost and appearance.

- 1. Planning the layout of a flat.
- 2. Layout and planning of kitchens.
- 3. Layout and planning of bedrooms.

2. **Creative recycling:** using leftover/ scrap material and items for making utility items, e.g. using torn/worn towels to make foot mats, using bottle caps to make rattles, etc.

## 3. Textiles and clothing

- (i) Tests to identify fibres such as burning test.
- (ii) Estimation of percentage of wool in cotswool.
- (iii) Tests for determining colour-fastness of fabric.
- (iv) Care of fabrics: wet and dry methods of cleaning fabric, factors to keep in mind while cleaning fabric. Use of detergent, influence of temperature. Starching of fabric.

4. **Food and nutrition:** use 24-hour dietary recall method to analyse individual diet patterns. Analyse with reference to requirements of basic food groups. Discuss implications of deficiency.

**OR**

Investigate the family patterns of consumption of food in a day with reference to the major food groups. Analyse the menus obtained with reference to individual requirements for specific nutrients.

## 5. Human Development

Visit the obstetrics and gynaecology department of a neighbouring hospital. Observe newborn babies and record their appearance and capacities. Talk to the nursing staff and the doctors about requirements for the care of a pregnant woman and a newborn infant.

**OR**

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.

## CLASS XII

There will be two papers in the subject.

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

**Paper II:** Practical: 3 hours ... 20 Marks

Project Work ... 7 marks

Practical File ... 3 marks

### PAPER I -THEORY

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

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

**Part II (50 marks)** will consist of questions, which will require detailed answers. There will be a choice of questions in this part.

#### 1. Food Preparation

- (i) Techniques and methods of cooking. Medium of cooking (dry and wet methods of cooking), choice of method of cooking and quality of food.
- (ii) Preliminary treatment of foods before cooking.
- (iii) New developments in cooking. Microwave cooking.
- (iv) Effects of cooking on food components. Carbohydrates – starch, sugar, pectin, cellulose; proteins; oils and fats; minerals and vitamins.

(v) Methods of increasing nutritive content. Sprouting, fermentation, parboiling, combination of foods.

#### 2. Meal Planning for the family

- (i) Objectives in meal planning. Nutritional adequacy, food groups.
- (ii) Factors affecting food selection. Tradition, seasonal availability, likes and dislikes, schedule of family members, family size and composition.
- (iii) Meal planning for various age groups. Nutritional needs of preschool children, school - age children and adolescents.

#### 3. Development of the child from 2 years to 18 years

- (i) Physical development.
- (ii) Cognitive development and language.
- (iii) Social and emotional development.

#### 4. Science in the home

- (i) Household pests and their control.
- (ii) Food adulteration.

#### 5. Consumer protection

Understanding laws for consumer protection.

#### 6. Perspectives on Adult Development

Meaning of adulthood.

## PAPER II

### PRACTICAL – 20 Marks

The Practical Work will be evaluated by the teacher and a Visiting Examiner appointed locally and approved by the Council. Typical work may be similar to those given below.

1. (i) Plan and prepare a meal for a preschool child's birthday party.  
(ii) Plan and prepare a suitable picnic lunch for a school age child.  
(iii) Plan and prepare a nutritious snack for an adolescent boy. Will there be differences in the preparation for an adolescent girl? If yes, why?
2. Understanding care labels on readymade garments.

### PROJECT WORK AND PRACTICAL FILE –

10 Marks

#### Project Work – 7 Marks

The project work is to be assessed by a Visiting Examiner appointed locally and approved by the Council.

The candidate is to creatively execute **one** project/assignment on an aspect of Home Science. Teachers may assign or students may choose any **one** project of their choice. Students can choose any other project besides the ones indicated in the list below. Following is only a suggestive list of projects.

1. Market survey of packaged goods such as, foodstuffs (biscuits, jams, chips, cheese spread), hair dyes, shampoos, soaps, etc. to investigate whether consumer protection norms of labeling are being followed.
2. Draw a case history of a family/individual by talking to elders, referring to diaries and seeing the photographs. Focus on factors responsible for change or development of an ability or characteristic.
3. Preparation of interview schedules, questionnaires, observations. Procedure for conducting interviews and questionnaires; factors to consider, such as, establishing rapport.

#### Practical File – 3 Marks

The Visiting Examiner is required to assess students on the basis of the Practical file maintained by them during the academic year.