

# HOME SCIENCE (68)

## CLASS IX

There will be one written paper of **two** hours duration carrying 100 marks and Internal Assessment of 100 marks.

### PART I: THEORY

The paper will be divided into **two** Sections, A and B.

**Section A** will consist of questions requiring short answers and will cover the entire syllabus. There will be no choice of questions.

**Section B** will consist of questions requiring longer answers. Candidates will be required to answer **four** questions. There will be a choice of 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.

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

- (ii) Significance of the study of Home Science in day-to-day life.

*The need for studying each aspect of Home Science enables a scientific understanding of the field and allows for research in the discipline. A study of Home Science helps in the ultimate understanding of self, people and the various social, emotional, and biological factors necessary for human survival.*

- (iii) Career options in Home Science.

*A discussion on various career options available for Home Science students at all levels—both self and wage employment.*

#### 2. Food and Health

- (i) Importance of food and its functions.

*The relationship between food and health; Methods of cooking foods (boiling, steaming, pressure cooking, frying, roasting and baking) – merits and demerits.*

- (ii) Nutrients and their functions –

*This topic is aimed at providing a foundation for understanding the importance of nutrients such as carbohydrates, protein, fats, vitamins – water soluble (Vitamin B -Thiamine, Riboflavin and Niacin and Vitamin C) & fat soluble (Vitamin A, D, E and K); and minerals - calcium, iron and iodine; water and roughage. Functions of nutrients, food sources and deficiency diseases.*

#### 3. The Family

- (i) Family - definition, characteristics, types of family.

*Explanation of how families can differ in terms of structure. Classification of families on the basis of structure as nuclear, joint, extended or reorganized families. A definition of a family, wherein families have been conceptualized as being a way of living together intimately and sharing economic, social and emotional responsibilities. It is a way of interacting to make the decisions required for everyday life.*

- (ii) Functions of a family; Significance of small family norms.

*Importance of the family – how family facilitates the psychological development of children making it possible for them to become effective members of society. It is within the family that children acquire the values, beliefs, expectations and knowledge, which constitutes its culture. It is the family that fulfills the needs of its family members. Significance of small family norms and its role – family, its members, society and nation at large.*

- (iii) Women and child welfare.

*Understanding the role of women and child in the family. Empowering women and eradicating child labour.*

#### **4. Growth and Development of Children from Birth to Five Years**

- (i) Principles of development; milestones of development with respect to physical & motor, social, emotional, cognitive and language development.

*This topic gives an introduction to the developmental needs of children below five years of age. The child from birth to five years is characterized by certain features of growth and development, which need to be studied in order to understand how this group of individuals function and mature. The young child differs from an adult not just in terms of physical size, but also in terms of capacities of thought, emotional understanding, social interactions and language.*

- (ii) Role of play and play-school for the young child.

*The role of play with emphasis on holistic growth of the child. Consideration in choosing the kind of play (indoor/outdoor), play materials and play-school.*

#### **5. The Home and its Maintenance**

- (i) Choosing a home.

*Characteristics of a good home with respect to features such as site and location, security, hygiene/sanitation, ventilation, light, and other amenities such as water, electricity and drainage.*

- (ii) Maintenance of house and its environment.

*Sustainable use of fuel and energy with emphasis on the need and methods for the conservation of gas, water and electricity in*

*the house; Role of sanitation and hygiene in the home and its environment.*

- (iii) Waste management in the home and community:

*- Domestic waste and its management*

*- Basic classification of waste in the community.*

*- Basic concept of bio degradable and non-biodegradable wastes.*

- (iv) Need to Refuse, Reduce, Re-use, Repair, and Recycle (5 R-s) waste.

*Importance and methods of five R's. for environmental conservation, with reference to sorting out of garbage into biodegradable vs. non-biodegradable, organic vs. non-organic, plastic vs. metal at home level and extending it to the community level.*

#### **6. Selection of Clothing**

- (i) Types of fabric available in the market.

*A brief idea about natural (cotton, silk and wool) and man-made (nylon, polyester and blended e.g. terry-cot, terry-silk, terry-wool, cotton-silk) fibres - properties and their use.*

- (ii) Factors influencing choice of clothing.

*The general understanding that choice of clothing is influenced by factors such as appearance, comfort, durability, maintenance and cost. How clothing requirements vary with respect to age also need to be articulated.*

#### **PART II: INTERNAL ASSESSEMENT**

*Please note the guidelines for Internal Assessment as given for Class X.*

## CLASS X

There will be **one** written paper of **two** hours duration carrying 100 marks and Internal Assessment of 100 marks.

### PART I: THEORY

The paper will be divided into **two** Sections, A and B.

**Section A** will consist of questions requiring short answers and will cover the entire syllabus. There will be no choice of questions.

**Section B** will consist of questions requiring longer answers. Candidates will be required to answer **four** questions. There will be a choice of questions.

#### 1. Home furnishing

- (i) Colour and its application.

*Dimensions of colour – hue, value and intensity. Prang colour wheel (primary, secondary and tertiary colours). Colour schemes – related (monochromatic/one hue colour, analogous /adjacent) and contrasting (complimentary, double complimentary, split complementary and triad) colour schemes and their applications in the home- living room, bed room, dining room and kitchen.*

- (ii) Fabrics for furnishing

*Factors affecting selection of furnishing (curtains & draperies, carpets and upholstery) that can enhance the appearance of a room.*

- (iii) Lighting in the home.

*Types of lighting (general/local & direct/indirect) Choice of adequate lighting for different rooms.*

- (iv) Space Organization in the kitchen.

*Layout and planning of kitchens*

*An introduction to the design of kitchen space with respect to placement of work centres for preparation, cooking, washing, service and storage for the most efficient utilization of space and saving time and energy.*

#### 2. Management of Money

- (i) Importance of budgeting and savings.

*Role of budgeting in the efficient management of money. Steps in making a budget and factors affecting a budget. An understanding of how budgeting helps in proper planning and judicious utilization of available resources. Need for saving, ways and means of saving.*

- (ii) Fundamentals of banking.

*Opening and operating a bank account, types of deposit accounts: savings, recurring, current and fixed deposit account, withdrawal and deposit of cash and cheque, writing a cheque, maintaining a pass book and use of ATM.*

#### 3. Growth and Development during Middle Childhood

*Milestones of development*

*An introduction to the changes in growth and development that take place between 5 - 12 years of age with respect to physical, social, emotional, cognitive and language development in children between five and twelve years of age.*

#### 4. Growth and Development during Adolescence

- (i) Physical growth of adolescents, pubertal changes.

*A brief introduction to the relationship of physiology and maturation during adolescence. The role of endocrine glands and their influence on physical and psychological changes during adolescence. Differences in physical maturity of boys and girls.*

- (ii) Hygiene and Personal grooming during adolescence.

*Awareness on issues such as body odour, appearance of facial and body hair, acne, pimples for both boys and girls.*

- (iii) Emotional concerns and behavioural patterns of adolescents.

*Introduction to the importance of emotions in influencing physical well-being and behaviour; means of dealing with emotions, eating disorders – food fads, anorexia,*

*bulimia and obesity. Significance of physical exercise.*

- (iv) Role of the family, peer group and school in the life of an adolescent.

*An introduction to the interaction of the family, peer group and school for the adolescent; issues of conflict between parental values and those of the peer group. Developing good communication skills with family and society.*

## 5. Meal Planning

- (i) Concept of balanced diet.

*Definition of a balanced diet, basic five food groups and their nutritional contribution in the diet.*

- (ii) Meal planning for the family.

*Planning of balanced meals keeping in mind the factors and food groups.*

- (iii) Hygienic handling and storage of food - household methods of preservation of food.

*Food hygiene at different stages – during purchasing, storage, preparation and serving. Storage of food - perishables, semi-perishables and non-perishables; Household methods of preservation of food – sun drying, freezing, use of salt, sugar, spices, oil and chemical preservatives.*

## 6. Care of Textiles and Clothing

- (i) Laundering of clothes.

*Steps involved in household methods of laundering of cotton, silk, wool and synthetics.*

- (ii) Laundry material.

*Use of detergents and soaps, starch, blue and optical brighteners.*

## 7. Consumer Education

- (i) Meaning and need for consumer education

*Role of consumer education in preparing children to be well informed consumers.*

- (ii) Wise buying methods for aware consumers.

Basic understanding of *what, where, when, how and how much to buy.*

- (iii) Consumer Rights and responsibilities

*Awareness of consumer rights as mentioned in Consumer Protection Act 1986; Making them aware that rights and responsibilities will go hand in hand.*

- (iv) Food adulteration

*Definition and health hazards of common food adulterants - metanil yellow, argemone seeds, kesari dal (lathyrus satyvus).*

## PART II: INTERNAL ASSESSMENT

To be assessed internally by the school - 100 Marks.

### Practical Work

Candidates will be required to practice one or more aspects of household work or cookery or care of clothing. They may also undertake practical work on any of the topics suggested below. The teacher is free to assess the practical work either on the basis of continuous assessment or on the basis of periodical tests.

### The minimum number of assignments for each academic year:

**Class IX - Five** practical oriented assignments as prescribed by the teacher.

**Class X - Five** practical oriented assignments as prescribed by the teacher.

### Suggested Assignments

- Preparation of nutritious snacks and various kinds of sandwiches.
- Removal of common stains from clothes/ fabrics – oil/curry/turmeric, blood, dye, ink and grass.
- Demonstration of various cuts of vegetables and fruits like slice, chop, dice, mince, juliennes to make easy salads.
- Finding out from parents about planning of household budget and saving methods.
- Plan a system for recycling of waste produced by the school/home.
- Preparation of compost pits.
- Gardening – potted plants, planting of herbs and medicinal plants and their care.

- Layout of the plan of the Home Science lab with complete detailing of work centres, storage areas and placement of heavy and light equipment.
- Cookery: Preparation of food using simple cooking techniques such as boiling, frying, steaming, grilling, baking, stewing.
- Care of clothing: Laundering of cotton and silk.
- Simple first aid in the home. First aid box and its contents - band aids, burnol, disinfectant, simple home remedy medicines, e.g. pain killer and pain balm and paracetamol.
- Safety considerations in the home – the study of safety features in the home, e.g. floors and floorings, staircase, lighting (natural and artificial) installation and maintenance of electrical points, fittings and gadgets. Suggestions for changes in safety considerations for elderly people and children.
- Collect labels from packages of food, clothing and consumer durables; study and analyse the information given in these labels.
- Cleaning of glass panes, grills, sink (steel and ceramic), counter tops (marble, granite and sand stones) and wooden shelves and electrical appliances like refrigerator, oven and cooking stove.
- Tips for personal grooming – pedicure and manicure, care of acne and pimples with home made remedies.
- List foods you have eaten on any one day and classify them into food groups, and analyse on the basis of nutrient content and appearance.
- Collect samples of fabrics and compare them on the basis of cost, durability, appearance and suitability. Testing of fibres – burning test.
- Food preservation – making of chutneys, pickles, and jam.
- Various innovative table layouts, napkin folding and creative decorations.
- Collect ten play materials and evaluate them in terms of their merits and demerits.
- Participate in eco-clubs and activities like debates, quizzes, exhibitions, essay competitions on the themes related to environmental concerns and problems. Synthesize information gathered from books, journals, magazines and the internet.
- Visit a water treatment plant, sewage treatment plant or garbage dumping or vermi composting site in the locality and study their working.
- Collect information about global environmental issues and problems and communicate your findings through appropriate modes of communication such as posters, charts, collages, cartoons, handouts, letters, street plays, etc. to all concerned.
- Identify economically and environmentally friendly alternatives in order to deal with the scarcity of resources such as fuels in the locality.

### Final Test

In addition to the course work the candidate will be tested in one or more aspects of household work or cookery or care of clothing by the External Examiner.

### EVALUATION

The assignments/project works are to be evaluated by the subject teacher and by an External Examiner. The External Examiner may be a teacher nominated by the Head of the school, who could be from the faculty, **but not teaching the subject in the section/class**. For example, a teacher of Home Science of Class XI may be deputed to be an External Examiner for Class X, Home Science projects.

The Internal Examiner and the External Examiner will assess the assignments independently.

### Award of marks

|                                      |            |
|--------------------------------------|------------|
| Subject Teacher (Internal Examiner): | 50 marks   |
| External Examiner                    | : 50 marks |

The total marks obtained out of 100 are to be sent to the Council by the **Head** of the school.

The Head of the school will be responsible for the entry of marks on the mark sheets provided by the Council.

### INTERNAL ASSESSMENT IN HOME SCIENCE - GUIDELINES FOR MARKING WITH GRADES

| <b>Criteria</b> | <b>Planning Efficiency</b>   | <b>Working to time plan</b>   | <b>Manipulation</b>  | <b>Quality produced</b>  | <b>Appearance/<br/>Arrangement</b>  | <b>Marks</b>               |
|-----------------|--|---|--|--|---|----------------------------|
| Grade I         | Follows the question set and systematically organises the work process.                  | Is successful in handling parts of the question set and fits them within required time.     | Excellent display of manipulative skills - can deal with a laboratory situation efficiently. | With a special insight into the question, the quality developed is of a high standard.       | A fine aesthetic sense and artistic ability conveyed in the complete arrangement.             | 4 marks for each criterion |
| Grade II        | Follows the question set except that the step by step work shows slow operational skill. | Is successful in handling parts of the question, but the smooth work appears to slow down.  | Good control of manipulative skills. Has been able to deal with each situation with ease.    | The insight into the requirements of the question has been achieved and the quality is good. | The display of colour and equipment used gives an impression of sound organisation.           | 3 marks for each criterion |
| Grade III       | Follows the question. Order of work process shows lack of co-ordination.                 | Is successful in handling the question, however the time link seems to break in some area.  | Has been successful with the manipulative skills in parts, then gradually slows down.        | The quality has been produced in part but the overall lacks some achievement.                | The arrangement appears complete but some special details missing.                            | 2 marks for each criterion |
| Grade IV        | Follows a part of the question, work sequence appears disorganised.                      | Is able to work only a part of the question within the time stated and then seems confused. | Begins with a control of the skills and is unable to sustain the effort.                     | Only few areas of quality are visible, which affect the total result produced.               | Part of the arrangement is represented but the total appearance lacks finish and composition. | 1 mark for each criterion  |
| Grade V         | Has not been able to interpret the question into proper laboratory organisation.         | Time and work sequence is most disorganised.  | Is unable to control and manipulate the required skills.                                     | No standard of quality has been achieved due to poor understanding.                          | There has been no achievement in either the appearance or arrangement.                        | 0 marks for each criterion |