

## COOKERY (69)

### Aims:

1. To acquire the knowledge of the terms, facts, concepts and principles required for cooking.
2. To develop an understanding of the basic methods of cooking.
3. To acquire skills related to:
  - Selecting and preparing nutritive foods for the family.
  - Planning and providing balanced meals for the members of the family.
  - preparing menus and cooking food for the family.

### CLASS IX

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

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

*Section A will consist of compulsory short answer questions covering the entire syllabus.*

*Section B will consist of questions that will require detailed answers. There will be a choice of questions. Candidates will be required to answer **four** questions from this section.*

#### PART 1: THEORY - 100 marks

##### 1. The Nutritive Value of Foods

- (i) Introduction to food and its role in providing adequate nutrition and in maintaining good health.

*Explaining the relationship between food and health is an important consideration while preparing meals for the family. Basic knowledge on food, good nutrition and health will help create an awareness regarding the necessity for developing healthy food habits. Definition of these terms and their relationship between food and health should be dealt with in this topic.*

- (ii) Food and nutrients; basic food groups as suggested by ICMR

*Listing the nutrients provided by food should be dealt with in this topic. Creating awareness about the nutrients and their food sources will lay a foundation to ensure they are well preserved and not lost while preparing meals.*

- (iii) Study on the following nutrients provided by food
- (iv) Carbohydrates
- (v) Proteins
- (vi) Fats and lipids
- (vii) Vitamins (A,C, D, E and K, Thiamine, Riboflavin and Niacin)
- (viii) Minerals (Calcium, Phosphorous, Iron and Iodine)

*Chemical structure, classification, functions and food sources of these nutrients. Knowledge of deficiency disorders such as protein-calorie malnutrition, Kwashiorkor, night blindness, rickets, osteomalacia, scurvy, and pellagra.*

*Studying each aspect of the various nutrients present in food enables a scientific understanding of their significant role in maintaining good health. Such knowledge is important for the inculcation of right food habits, proper food management and avoiding food fads and eating disorders among young adults. Analysis of such food habits will help in dealing with problems associated with being undernourished, underweight or overweight.*

##### 2. Basic methods of Cookery and Principles involved:

- (i) Need for cooking and principles of cookery: basic terminology used in cooking

*This topic gives an introduction to the importance of cooking food and the corresponding principles involved.*

*Knowledge of the principles involved will give an understanding on how best to use the cooking methods so that the cooked food is digestible, palatable and presentable. Understanding the use of right terminologies at the various stages of cooking methods help in developing the right cooking skills.*

- (ii) Basic methods of cookery: boiling, steaming, cooking under pressure, stewing, baking, frying, grilling; advantages and disadvantages of these methods of cooking; precautions to be observed

*A brief description of these cooking methods, their advantages and disadvantages will help in creating awareness about the correct choice of a method for cooking a particular food item. Understanding the correct procedure is important for getting the ideal final product, preserving their nutritive value. The various methods of preparation of food and their suitability for various food items and the precautions to be taken to avoid over or under cooking are to be emphasised. The topic should also cover the need for safety in food handling procedures.*

### **3. Methods of preparing and cooking food to preserve nutritive properties and to improve flavour.**

- (i) Guidelines to be followed while cooking food: to preserve the nutritive values, make them available to the person consuming it and improve the flavour

*A brief account of the do's and don'ts during the process of handling and cooking food enables a learner to adopt correct eating habits. The relationship between the way the food is cooked and its consumption is an important consideration and needs to be drawn out for creating right food habits.*

- (ii) Methods of enhancing food values: sprouting and germinating, malting, fortification, combination, fermentation, and par-boiling.

*Explanation on how the nutritive values of food can be enhanced through various methods need to be generated specially during situations like food scarcity and non-seasonal unavailability. Also, it can help in*

*providing the knowledge on the special needs of people whose requirements with respect to specific nutrient contents in their diets vary.*

- (iii) Use of spices, leavening agents, tendering agents, thickening agents: importance of garnishing and use of herbs

*Knowledge of these terms can aid in modifying food consistency, texture and flavour to improve food acceptability and absorption of nutrients.*

### **4. Physical changes in food during cooking.**

- (i) Food components and major constituents: carbohydrates, protein, fats and inorganic mineral components

*An understanding of the properties of the major food components and the changes that occur during the handling, processing and cooking processes is an important factor in making the right choice of a cooking method for each type of food. A brief discussion on these will enable a student to understand and carry out the appropriate cooking method to obtain an acceptable final product while preserving the nutritive contents.*

- (ii) Effect of cooking (heat) on cereal foods (rice and wheat), meat, egg, milk, pulses, sugar, fruits and vegetables; role of acids and enzymes

*Understanding the properties of these food items and the changes that occur during cooking process is necessary to adopt healthy cooking practices and the care to be taken to preserve their consistency, texture, colour (pigments), flavour and nutritive values. Role of acids and enzymes in modifying the texture, flavour and nutrient contents of food items need to be emphasised.*

Note: Existing terms and conditions on the conduct of exams and internal assessments can remain as such.

### **PART 2: INTERNAL ASSESSMENT**

To be assessed internally by the school - 100 Marks

Please note the guidelines for internal assessment as given for Class X.

## CLASS X

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

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

**Section A (compulsory)** will consist of short answer questions covering the entire syllabus.

**Section B** will consist of questions that will require detailed answers. There will be a choice of questions. Candidates will be required to answer **four** questions from this section.

### PART 1: THEORY - 100 marks

#### 1. Choice and cost of seasonal foods: merits and intelligent use of convenience foods

##### (i) Choice and cost of seasonal foods

Detailed study of food guides for proper selection and the use of seasonal foods to ensure good nutrition. Advantages of seasonal foods - during season, foods are rich in nutrients and of low cost. Is the cost of foods related to their nutritional values? Suggestion of cheaper substitutes for expensive food items, e.g. green leafy vegetables, amla, guava etc.

##### (ii) Choice and purchase of perishables, semi-perishables and non-perishables and their hygienic storage

*Economical shopping: shopping at supermarkets, wholesale outlets, retail shops, street vendors – merits and demerits. Provision for hygienic storage of perishables, semi-perishables and non-perishables and use of minimum resources for maximum benefit in limited food budgets.*

##### (iii) Use of convenient foods, such as tinned, packed, frozen and processed foods

*Merits and demerits of using convenience foods in diets; factors for selection of foods – variety and labour and time saving. Reading labels of packed convenient foods for brand name, trademark, shelf life, dates of manufacture and expiry, food standard/quality marks such as ISI, FPO and Agmark for right choice of foods. Encouraging the use of convenience foods*

*sparingly and use more of fresh seasonal foods for obtaining good nutrient values and avoiding preservatives in diets.*

#### 2. Meal planning and balanced diets: use of five food groups as suggested by ICMR

##### (i) Objectives of meal planning

*Importance of factors like balanced diet (age, gender, occupation and health status), climatic conditions, choosing nutritionally rich but economical foods within the five food groups, storage space, seasonal variations in the diets, etc.*

##### (ii) Psychological aspects of food planning

*Likes and dislikes, state of mind due to stress, food fads, traditional and cultural influences on meal planning. Planning meals for festivals, special occasions and unexpected visitors.*

##### (iii) Planning meals for various age groups

*Planning balanced meals according to ICMR nutrient allowances for pre-school, school going children, special needs of adolescents and the elderly, pregnant and lactating women.*

#### 3. Therapeutic diets and planning meals

##### (i) Definition of diet therapy, reasons for using therapeutic diets, and types of therapeutic diets.

*Brief foundation on dietetics and diet therapy; types of diets – liquid, semi-liquid, solid and soft; treating illnesses through diets at home under the proper guidance of a medical practitioner/nutritionist. Efforts are to be made to incorporate variety and ingenuity through a discussion on various sample diets.*

##### (ii) Obesity: causes and diet therapy

*Factors leading to obesity, role of proper dieting habits, right choice of food, exercise and proper meal pattern. Significance of diet counselling.*

##### (iii) Planning meals for the invalids and convalescents

*Role of diets in treating illnesses such as fever, anaemia, diarrhea, hypertension and diabetes. Suggestions for modification in diets for invalids and convalescents, keeping in mind the health status, likes and dislikes and cultural habits.*

#### **4. Food preservation and storage**

- (i) Causes of food spoilage, advantage of food preservation, principles of food preservation

*Factors for food spoilage: internal and environmental factors (micro-organisms, enzymes and insects); prevention or delay of self decomposition of food and of microbial decomposition; advantages of food preservation. Principles involved in food preservation.*

- (ii) Long term and short term preservation methods at home – milk and milk products, egg, meat, fish, vegetables and fruits

*Methods for preserving foods at home – refrigeration, deep freezing, dehydration, pickling, salting, preparing squashes, juices and jams using chemical preservatives; storing garden produce.*

- (iii) Commercial methods for preserving foods – canning, pasteurisation and cold storage

*Hygienic and proper storage of various food items at commercial levels for future use, reducing costs and providing variety in the diets.*

#### **5. Kitchen planning**

- (i) Types of kitchen and work centres

*Types of kitchen layouts: one wall, two wall, U-shaped, broken U-shaped and L-shaped kitchens; modular kitchen; detailed study on the four main work centres – preparation, cooking, washing, and serving. Knowledge of the basic requirements of the planned kitchen layouts, fixtures, equipments and inter-space relationship to provide efficient utilisation of space and to avoid fatigue.*

- (ii) Factors to be considered while planning a kitchen

*Contribution of proper lighting, water supply, ventilation, ceiling, floor, walls, storage*

*fixtures and other necessary cooking items for convenient, comfortable and labour saving kitchen features, use of work simplification techniques.*

- (iii) Safety in kitchen

*Use of proper materials for floors and walls, avoiding sharp edges on counters and proper storage for equipments, especially for sharp instruments like knives.*

#### **6. Kitchen hygiene**

- (i) Food hygiene, food handlers and the food stuffs

*Rules for maintaining hygienic conditions in the kitchen and importance of personal hygiene of food handlers for providing clean food to the family members.*

- (ii) Food sanitation

*Importance of food sanitation; related diseases such as diarrhoea, cholera and dysentery. Role of proper/uncontaminated water supply.*

- (iii) General cleanliness of kitchen

*Regular (daily, weekly, monthly, yearly/seasonal) cleaning, ways and the materials to be used for maintaining kitchen hygiene, especially on the floors and the storage places.*

- (iv) Disposal of kitchen waste

*Proper procedure to be adopted for the disposal of solid and liquid waste; care of bins, sink and drains, importance of good ventilation.*

- (v) Household pests

*Care of food from food polluters such as cockroaches, ants, lizards and rodents, careful use of insecticide and pesticides at home. The topic creates an awareness of cleanliness within the kitchen and outside, aiming for a cleaner and safer environment during food preparations and storage.*

#### **7. Kitchen equipment**

- (i) Basic equipment for food preparation and cooking

*Detailed study of materials used in cooking utensils, cutting devices, and stirring equipments – selection and care of pressure cookers and pans, microwave oven, non-stick cookware, plastic-ware, microwave-proof cookware. Precautions to be followed while using them to maintain cleanliness and maximum safety in the kitchen*

(ii) Equipments for serving

*Features to be kept in mind while choosing them: cost, easy to handle, safety, durability, utility, size, design and aesthetics. Care, cleaning and storage of these equipments.*

(iii) Table setting and table service

*Detailed study of the various table services, such as formal, informal, and buffet.*

## **PART 2: INTERNAL ASSESSMENT**

To be assessed internally by the school - 100 Marks

### **Practical Work in Cookery**

Candidates will be required to do practical work in one or more aspects of cookery. 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**

1. The merits, use and care of various types of kitchen equipment and utensils.

2. Cooking processes: boiling, frying, steaming, baking, grilling, and stewing.
3. Planning and preparation of meals for different types of people on different occasions.
4. Mixing and baking bread, cakes, patties, etc.
5. Practice in the preparation of salads, pickles, juices, puddings, sweets, biscuits, etc.
6. Mixing and making chapatis, nans, etc.
7. Practice in preparation of squash, jam, etc.
8. Nutritive and healthy cooking.

#### **Final Test**

In addition to the practical work, the candidates will be tested in the planning and preparation of a meal by the External Examiner.

#### **EVALUATION**

The assignments/project work 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 Home Science teacher of Class VIII may be deputed to be an External Examiner for Class X 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 COOKERY - GUIDELINES FOR MARKING WITH GRADES

| Criteria               | Planning Efficiency  | Working to time plan   | Manipulation   | Quality produced   | Appearance/<br>Arrangement  |
|------------------------|--|--|--|--|---|
| Grade I<br>(4 marks)   | 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 has been conveyed in the complete arrangement.    |
| Grade II<br>(3 marks)  | 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.           |
| Grade III<br>(2 marks) | 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 developed well in part but the overall effect lacks some achievement.   | The arrangement appears complete but some special details are missing.                        |
| Grade IV<br>(1 mark)   | Follows a part of the question, work sequence appears disorganised.                      | Is able to work only a part of the question within the time stated.                        | Begins with a control of the skills and is unable to sustain the effort.                     | Only a few areas have been well developed, which affect the total result produced.           | Part of the arrangement is represented but the total appearance lacks finish and composition. |
| Grade V<br>(0 marks)   | 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.                        |