

# **FOOD NUTRITION & FOOD PRODUCTION**

## **FOOD NUTRITION**

- **Nutrition**

Definition of health and nutrition, classification of nutrients, contribution of energy from macronutrients, balance and health hazards of overweight and underweight, vitamins and minerals, water and its functions, balanced diet and MENU planning, new trends in food service industry in relevance to nutrition and health, enzymatic and non-enzymatic browning

### **1. BASIC ASPECTS**

- Health, Nutrition and Nutrients
- Importance of Food – (Physiological, Psychological and Social function of food) in maintaining good health
- Classification of nutrients

### **2. ENERGY**

- Energy and Units of measurement
- Energy contribution from macronutrients (Carbohydrates, Proteins and Fat)
- Factors affecting energy requirements
- Concept of BMR
- Dietary sources of energy
- Concept of energy balance and the health hazards associated with Underweight, Overweight

### **3. MACRO & MICRO NUTRIENTS**

#### **MACRO NUTRIENTS**

##### **i) CARBOHYDRATES**

- Classification (Mono, Di and Polysaccharides)
- Dietary Sources
- Functions
- Significance of dietary fiber (Prevention/Treatment of diseases)

##### **ii) LIPIDS**

- Classification : Saturated and Unsaturated fats
- Dietary Sources
- Functions
- Significance of Fatty acids (PUFAs, MUFAs, SFAs, EFA) in maintaining health  
Cholesterol – Dietary sources and the Concept of dietary and blood cholesterol

### **iii) PROTEINS**

- Classification based upon amino acid composition
- Dietary sources
- Functions
- Methods of improving quality of protein in food

## **MICRO NUTRIENTS**

### **i) VITAMINS**

- Classification (Water and Fats Soluble Vitamins)
- Food Sources, function and significance of Fat soluble vitamins
- Food Sources, function and significance of Water soluble vitamins

### **ii) MINERALS**

- Classification (Major and Minor)
- Food Sources of different minerals
- Functions and significance of Calcium, Iron & Iodine

### **iii) WATER**

- Dietary Sources (Visible, Invisible)
- Functions of water
- Role of water in maintaining health (Water Balance)

## **4. BALANCED DIET**

- Importance of balanced diet
- RDA for various nutrients – Age, Gender, Physiological State
- Food borne diseases
- Deficiency diseases
- Protein Energy Malnutrition

## **5. MENU PLANNING**

- Principle of menu planning
- Planning of nutritionally balanced meals based upon the three food group system
- Factors affecting menu planning
- Calculation of nutritive value of dishes/meals

## **6. FOOD SAFETY MANAGEMENT TOOLS**

- HACCP
- ISO Series
- National Food Standards (BIS, AGMARK)
- Food Laws (FSSAI)

# **FOOD PRODUCTION**

- **FOUNDATION COURSE IN FOOD PRODUCTION-I**

Layout of kitchen, Duties and Staffing of Chefs in hotels, various techniques used in pre-preparation and preparation, classification of fruits and vegetables, cuts of vegetables, salads and its dressings, stock and its types, classification of mother sauces and its derivatives, different methods of cooking, egg-based cookery, various commodities (shortenings, raising agents, thickening agents, sugar), Equipment and safe procedures of its handling.

- **FOUNDATION COURSE IN FOOD PRODUCTION-II**

Soups and its classification, meat- based cookery including its cuts, classification of fish, fish-based cooking with examples, cooking of rice, cereals and pulses, types of pastry

- 1. CULINARY HISTORY**

- Origin of modern cookery

- 2. AIMS & OBJECTIVE OF COOKING FOOD**

- Aims and objectives of cooking food
- Various textures
- Various consistencies
- Techniques used in pre-preparation & preparation

- 3. METHODS OF COOKING FOOD**

- Roasting
- Grilling
- Frying
- Baking
- Broiling
- Poaching
- Boiling
- Principles of each cooking method
- Care and precautions to be taken
- Selection of food for each type of cooking

- 4. SOUPS, STOCKS & SAUCES**

- i) SOUPS**

- Classification of soups
- Broths, Bouillon, Puree, Cream, Veloute, Chowder, Bisque, International soups

- ii) STOCKS**

- Types of stock

- Recipes & Preparation of stock
- Usage, Storage, Care and Precautions of stocks

### iii) **SAUCES**

- Classification of sauces
- Recipes for mother sauces
- Storage & precautions

## **5. EGG COOKERY**

- Structure of an egg
- Selection of egg
- Uses of egg in cookery

## **6. MEAT COOKERY**

- Cuts of beef/veal or Cuts of lamb/mutton
- Variety meats
- Poultry

## **7. FISH COOKERY**

- Classification of fish
- Cuts of fish
- Selection of fish and shell fish
- Cooking of fish

## **8. RICE, CEREALS & PULSES**

- Classification and identification
- Cooking of rice, cereals and pulses
- Varieties of rice and other cereals

## **9. BASIC INDIAN COOKERY**

### i) **CONDIMENTS & SPICES**

- Spices used in Indian cookery
- Role of spices in Indian cookery
- Indian equivalent of spices

### ii) **MASALAS**

- Blending of spices
- Different masalas used in Indian cookery
- Composition of different masalas
- Varieties of masalas available in regional areas

- Special masala blends

#### **10. Advanced Food Production Operations**

Indenting, planning for quantity food preparation, Institutional catering, hospital catering, off-premises catering, mobile catering, quantity purchasing and storing , introduction of larder work, larder control, duties of Larder chef, Sandwiches making, Inventory control

#### **11. Bakery and Patisserie**

Types of breads, principles of bread making, basic pastry creams, simple and enriched cakes, cookies, hot and cold desserts, basic commodities (milk, cream, cheese and butter), Indian sweets, Icings and toppings, methods of ice-cream preparation