Nutrition & Dietetics

DEGREE STANDARD

Subject Code: 379

UNIT- I

a) Food groups - basic 4, 5 and 7 and functional Food groups

b) Importance of cooking - Methods - Advantages and disadvantages - physio - chemical changes.

c) Structure, Composition, nutritive value, selection, processing methods, principles of cooking. i) Cereals ii) Pulses iii) Vegetables and fruits

UNIT -II

a) Structure, composition, Nutritive value, selection, storage, quality, kinds, methods of processing, uses in cookery
i) Milk and Milk products ii) Fleshy foods - Meat, Poultry, fish and organ meats iii) Eggs

b) Beverages - classification - nutritive value and role in diet - Methods of preparation

c) Spices and condiments - Commonly used 'Spices and condiments - uses and abuses'.

UNIT- III

a) Fats and oils: - Composition, Nutritive value, properties, storage, processing, factors affecting absorption, care during cooking.

b) Sugar and Sugar cookery:- Types, Nutritive value, stages in sugar cookery and application in the preparation of Indian sweets.

c) Food preservation - Importance of preservation. i) Food spoilage - Types, causes - principles of food preservation. ii) Methods - by using sugar iii) Drying and dehydration iv) Refrigeration and freezing v) Canning vi) Pickling vii) Chemical preservatives.

UNIT -IV

a) ENERGY:- Energy content of foods, BMR and total energy requirements. Carbohydrates, fats and proteins - classification, functions, digestion, absorption and metabolism, requirements, sources and effects of deficiency.

b) Vitamins - water and fat soluble vitamins; chemistry, properties, functions, deficiency and toxicity.

c)Minerals - Macro and Micro minerals - occurrence, functions, absorption, Sources, requirements, utilization, deficiency and toxicity

UNIT- V

a) Importance and principles of meal planning based on 5 food groups at different income level.

b) ICMR Nutritional requirements for different age groups - Infancy, Children, Adolescents, Adults and the aged and Pregnancy and lactation.

c) Nutritional assessment – Methods - Advantages and disadvantages. Malnutrition - causes, methods to alleviate malnutrition - Importance of nutrition education. Feeding programmes in action in State.

UNIT- VI

a) Diet Therapy - Definition, concept, principle, classification of therapeutic diets, feeding the patient. Dietitian - Role, qualities, types and Diet counselling. b) Etiology, signs and symptoms, dietary modifications and counseling measures for gastro intestinal disorders - Peptic ulcer, diarrhoea, constipation, malabsorption syndrome.

c) Liver and Gall Bladder: Hepatitis and cirrhosis, hepatic coma, cholestasis and cholecystitis, Pancreas: Pancreatitis and diabetes mellitus, Etiology, signs and symptoms, dietary modifications

UNIT- VII

Etiology, signs and symptoms, dietary modifications and counselling measures for

a) Obesity and underweight. Cardio-vascular diseases: Hypertension, atherosclerosis, Ischemic heart diseases, cardiac failure

b) Renal disorders - nephritis, Nephrosis, Uremia and Renal failure, Renal Stones. Cancer - causes, dietary modifications, different types of therapy.

c) Diet in allergies, causes, tests, elimination diets. Pre-Operative and post operative diets.

UNIT- VIII

a) Types of catering – Commercial and Non commercial

b) Quantity cookery - Selection, Purchasing and storage, standardisation of recipe, portion control, utilisation of leftover food.

c) Organisation - Types and principles, organisational structure. Management - Principles, techniques and leadership and managerial abilities - Tools of management.

UNIT-IX

a) Personnel Management - Selection, induction, training and supervision, motivation and performance appraisal, legal aspects of catering.

b) Cost control - Principles and methods of food cost control

c) Sanitation and safety; Significance, health care measures - in preparation and service and for service personnel, safety measures in food service.

Unit X

a) Microorganisms- Morphology of fungi, bacteria and virus, Food borne illness transmitted through food and water, Factors affecting growth of microorganisms, kind and number and

chemical changes caused by microorganisms, Sources of food contamination.

b) Quality – principle and stages of quality control adulteration and contamination, simple tests to detect adulterants.

c) Food standards – AGMARK, BIS. FSSAI – functions structure, licensing and registration. Role of Food Commissioner, designated officer, Food Safety Officer.