

CORE COURSE I : FOOD SCIENCE

UNIT – I

- a. Definitions : Food Science, Food, Nutrients, Nutrition Status, Mal-nutrition, under – Nutrition, over Nutrition, Balanced diet, Hunger, Hollow Hunger, Hidden Hunger, Appetite, Health, Meal, Menu.
- b. Balanced Diet and Food Groups: Basic four and Basic five, Nutritional Classification of foods – Energy yielding, Body Building and protective foods.
- c. Cooking Methods : Moist and Dry heat methods of cooking, merits and demerits.

UNIT – II

- a. Cereals and Cereal Products : Structure Nutritive value of rice, wheat, maize and locally available millets, Enrichment and fortification. Batters and Doughs; Milling and parboiling; Malting of cereals.
- b. Pulses and Nuts : Composition and Nutritive value, factors affecting cooking quality of pulses, germination of whole grams.

UNIT III

Vegetables and Fruits – classification, Nutritive value, changes during cooking of vegetables, changes during ripening of fruits. Storage.

UNIT – IV

- a. Milk & Milk Products : Composition and Nutritive value, Different types of milk products; pasteurization of milk.
- b. Egg : Structure, Composition and Nutritive value. Measure of quality, factors affecting foam formation, uses of egg in cookery. Home preservation and storage.
- c. Fleshy Foods: Composition and Nutritive value of meat, fish and poultry selection and storage – Effect of cooking on colour, texture and flavour. Factors affect tenderness.

UNIT – V

- a. Fats & Oils : Composition and Nutritive value of common fats and oils, and reuse of oils, smoking temperature, ronsidity of fat, absorption.
- b. Beverages : Classification, Nutritive value – Coffee, Tea, Cocoa, milk based fruit juices, aerated and alcoholic beverages.
- c. Spices and Condiments : Types, uses in Indian cookery.

Reference

1. Swaminathan, M. : Hand Book of Food Science and Experimental Food Text.
2. Hughes. O. 1971 : Introductory Foods.
3. Peckham, C.G. 1969 : Foundation of Food Preparation
4. Love, P. 1967 : Experimental Cookery
5. Swaminathan, M. 1976: Essentials of Food and Nutritive Vol.I
6. Potler, N. : Food Science.