

Nutraceuticals and Functional Foods
(Course code-ESU009)

Credits-3

L-3, P-0

Instructions

1.For Paper Setters: The question paper will consist of five sections A, B, C, D and E. Section E will be Compulsory, it will consist of a single question with 10-20 subparts of short answer type, which will cover the entire syllabus and will carry 20% of the total marks of the semester end examination for the course. Section A, B, C and D will have two questions from the respective sections of the syllabus and each question will carry 20% of the total marks of the semester end examination for the course.

2.For Candidates: Candidates are required to attempt five question in all selecting one question from each of the section A, B, C and D of the question paper and all the subparts of the questions in section E.

Section – A

Defining nutraceutical & functional foods, nature, type & scope of nutraceutical & functional foods.

Nutraceutical & functional food applications and there health benefits, nutraceutical compounds and there classification based on chemical and biochemical nature with suitable and relevant description.

Nutraceutical for special situation such as cancer, heart disease, stress, osteoporosis, hypertension etc.

Section – B

Antioxidants and other phytochemicals, (isoflavones, lycopenes), there role as nutraceutical & functional foods, dietary fibers and complex carbohydrates as functional foods.

Proteins as functional food ingredients, probiotic foods and there functional role, herbs as functional, health promoting activity of common herbs.

Section – C.

Cereal products as functional foods – oats, wheat bran, rice bran etc.

Functional vegetable products, oil seeds and sea foods.

Coffee, tea and other beverages as functional foods/drinks and there protective effects.

Section – D

Effect of processing, storage and interaction of various environmental factors on the potentials of such foods.

Marketing and regulatory issues for nutraceutical & functional foods.

Recent developments and advances in the area of nutraceutical & functional foods.

Text / Reference Books:

1. Mazza. G (1988), Functional foods – biochemical and processing aspects, technomic Publ. Lancaster USA.
2. Kirk, RS (1999), Pearson's composition and analysis of foods. Wesley Longman Inc. California, USA.
3. Wildman, REC (2007), Handbook of nutraceutical & functional foods.
4. Official methods of analysis (2003), Association of official analytical chemist, USA.