

2022
4th Sem.
B.Tech.
ROLL NO- _____

B. TECH FOOD TECHNOLOGY
Semester IV Examination (2022)
Course Code- BFTC-402
Course Title – Functional foods and Nutraceuticals

TIME: 3 hours

Max. Marks: 75

Note: 1. It is compulsory to answer all the questions of Section-A.
2. Answer any four questions in Section- B.

Section-A (35 marks)

Q1.

- (a) Differentiate between dietary supplement, nutraceutical and functional food (2M)
(b) Suggest a diet plan comprising of functional foods suitable for geriatric population (2M)

Q2. (a) Write a brief account on functional foods and nutraceuticals relevant in:

- i. Neural health (4M)
ii. Liver diseases (4M)

(b) State any two pancreatic diseases and suggest foods for a healthy pancreas (4M)

Q3. (a) Mention any three requirements for a functional food to acquire a health claim. (3M)

(b) Define Mediterranean diet and its relevance. (3M)

(c) State potential health benefits of the following: (3M)

- i. Phytoestrogens
ii. ALA
iii. Spirulina

Q3. Multiple choice questions/One-word/Fill in the blanks: (10M)

- i. Cruciferous vegetables such as cauliflower and broccoli contain the bio-active component (secondary metabolite) _____
- ii. The bioactive compound found in turmeric is _____
- iii. _____ are examples of soluble fibers and insoluble fibers include _____
- iv. _____ is a combination of probiotics and prebiotics designed to improve rate of colonization and survival of ingested micro-organisms in gut.
- v. Predominant polyphenol present in grapes with anti-oxidant activity is:
a. Resveratrol b. Kaempferol c. Aglycone d. Diosgenin
- vi. Good sources of dietary _____ include yellow corn, mango, orange juice etc.
a. β -cryptoxanthin b. Zeaxanthin c. Lycopene d. α/β carotene
- vii. The term functional food originated in
a. India b. Europe c. Japan d. China

viii. Tea, cocoa, apples, grapes, all contain _____

a. Catechins

b. Phytates

c. Quercetin

d. Sterols

ix. Psyllium husk has the potential to treat chronic:

a. Allergies

b. Constipation

c. Arthritis

d. Diabetes

Section- B (4*10=40 marks)

Q1. Give an elaborate classification of nutraceuticals based on plant and animal sources.

Q2. Elaborate on the functional foods and nutraceuticals for prevention of gall stones.

Q3. Enlist few examples of transgenic foods. Discuss in detail the challenges/limitations associated to commercialization of these foods.

Q4. Discuss in detail the relevance of any one sulphur based food product for cardio-protective health.

Q5. Discuss the marketing and regulatory issues for functional foods and nutraceuticals. Mention the roles of agencies involved.

Q6. What are probiotics? Discuss the features of probiotic microorganisms and write detailed note on their health benefits.

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