

08-05-2023

B. Teel.
2023
4th Sem.

B. TECH FOOD TECHNOLOGY
Semester IV End Semester Examination (2023)
Paper Code- BFTC-402

Roll no: _____

Paper 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 five questions in Section- B.
3. Answer any three questions in Section-C

Section-A (Compulsory: 15 marks)

Q1. Multiple Choice Questions:

(CO 1, 2, 3) (5)

- I. _____ is a water insoluble fiber.
a. Pectins b. Gums c. Mucilages d. Cellulose
- II. Capsaicin is an active component of:
a. Black pepper b. Garlic c. Ginger d. Chilli pepper
- III. The flavonoids possessing phytoestrogen activity is:
a. Flavones b. Catechins c. Isoflavones d. Anthocyanidins
- IV. Injury to the garlic bulb activates _____ enzyme which metabolizes alliin to allicin.
a. Alanine synthetase b. Allicinase c. Allinase d. Aconitase
- V. Psyllium husk has the potential to treat chronic:
a. Allergies b. Constipation c. Arthritis d. Diabetes

Q2. Short answer type questions:

(CO 1,2,3,4)

- i. Name any four bioactive components present in Indian spices. (2)
- ii. Enlist two advantages of transgenic crops. (2)
- iii. What is DASH diet? (2)
- iv. Mention health benefits of spirulina. (2)
- v. Differentiate between nutraceutical and dietary supplement. (2)

Section B (6*5=30 marks)

Q1. Write short notes on any five:

(CO 1, 2, 3)

- i. Specific nutraceuticals in cancer prevention
- ii. Probiotics in health and wellbeing
- iii. Functional foods in cardiovascular diseases.
- iv. Functional foods and nutraceuticals for NAFLD
- v. Relevance of breast milk in infant nutrition
- vi. Modes of action of foods in neurodegenerative disorders

Section C (Attempt any three: 10*3=30 marks)

- Q1. Give a detailed account on the challenges encountered in formulating and commercializing nutraceutical dosages? What are the key considerations? (CO4)
- Q2. Give an elaborate account on the regulations on nutraceuticals, functional foods, and dietary supplements in India. Mention the role of various agencies involved in marketing, regulating and licensing. (CO4)
- Q3. Suppose you have started a new venture of bottled functional beverages and plan to incorporate a sour-tasting berry to it. The berry is known for increasing vitality. As a product development manager, what considerations would you make to investigate its potential in your product. Also, highlight claims, packaging and labeling aspects, etc. (CO 1, 2, 3)
- Q4. Give few examples of GM crops and foods. What are the limitations associated to commercialization of these foods. (CO4)

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