

**B.Sc (Hons) FNS Semester-6 Examination****FNS 323****Nutraceuticals & Functional Forces****Time : 2-30 Hours]****April-2024****[Max. Marks : 70**

**Instructions:** Illustrate your answers with neat diagrams wherever necessary.

**Q. 1 Write the following**

- (i) Explain the health benefits of Probiotics & Prebiotics. (7 Marks)
- (ii) Explain phytochemicals and give at least 5 examples of phytochemicals. (7 Marks)

**OR**

- (i) Explain the Regulatory body operational in India and the mandatory labelling requirements in India. (7 Marks)
- (ii) Explain the health claims allowed in India. Also list the Categories covered under Food Safety and Standards Regulations, 2022. (7 Marks)

**Q.2 Write the following**

- (i) Write a detailed note on nutraceuticals used in treatment and prevention of CVDs. (7 Marks)
- (ii) What are antioxidants? Explain the role of nutraceuticals in cancer treatment and prevention. (7 Marks)

**OR**

- (i) Describe in detail how nutraceuticals can benefit individuals with Diabetes. (7 Marks)
- (ii) Explain the therapeutic potential of nutraceuticals in Obesity with suitable examples. (7 Marks)

**Q. 3 Write the following**

- (i) Explain the principles of HACCP in brief. (7 Marks)
- (ii) Explain the Principles of Safety and Quality Management In Food Industries. (7 Marks)

**OR**

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- (i) Explain any two countries Regulatory process. (7 Marks)
- (ii) Explain in short the different international regulatory bodies for nutraceuticals. (7 Marks)

**Q. 4 Write the following**

- (i) Explain Nutraceutical market size in India? What are the factors that can be attributed to growth of the nutraceutical market? (7 Marks)
- (ii) What is food labelling? Describe in detail about the information on label of food package containing nutraceuticals. (7 Marks)

**OR**

- (i) Define the terms “Food Standards” and “Food Safety”. Explain in detail about FSSAI and its functions. (7 Marks)
- (ii) Describe the term regulation. Explain the national regulations governing nutraceuticals in detail. (7 Marks)

**Q. 5 Attempt any seven out of twelve**

(14 Marks)

- (i) Write the full form of FSDU.
  - (ii) Which products qualify under FSMP?
  - (iii) Under which category gym supplements and products for sport persons will fall?
  - (iv) Explain NSSL technology?
  - (v) The \_\_\_\_\_ act governs the regulation of nutraceutical in India.
  - (vi) What is Microencapsulation?
  - (vii) Explain the schedules FOR FOOD AND NUTRACEUTICALS as given by FSSAI for Indian.
  - (viii) Full form of DSHEA & FSANZ?
  - (ix) Which bioactive compound is present in tomato?
  - (x) How to assure quality in terms of both safety and efficacy of Nutraceutical products?
  - (xi) What are Nutraceuticals & Functional foods?
  - (xii) Full form of EPA & DHA?
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