

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING**

**SECOND SEMESTER – APRIL 2022**

**PFP 2601 – FUNCTIONAL FOODS AND NUTRACEUTICALS**

Date: 24-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

**PART – A**

**(10x 3 = 30 Marks)**

**Answer ALL Questions**

**Q. No**

- 1 Define functional foods.
- 2 Recall the bioactive components in the following foods
  - a. Corn
  - b. Flax
  - c. Beef
- 3 Expand ALA, FOSHU, CoA
- 4 Recognize the food sources of the following nutraceuticals
  - a. Creatine
  - b. Alpha-linolenic acid
  - c. Lycopene
- 5 Soy isoflavones are promising in their role as supplements in preventing and treating postmenopausal osteoporosis. Justify
- 6 Mention the various methods used for solvent extraction of bioactive components.
- 7 What are zoochemicals? State any three examples.
- 8 Name any three nutraceuticals which can enhance bone health.
- 9 Highlight the interrelationship between nutraceuticals and nutrigenomics.
- 10 List any three adverse effects of melatonin.

**PART – B**

**(5 x 8 = 40 Marks)**

**Answer ALL the Questions**

- 11 a. Categorize functional foods with suitable examples.

**(OR)**

b. Describe how the nutrient content claim can be related to the criteria for the use of the word 'Healthy' in processed food products.
- 12 a. Bring out the beneficial effects of polyphenolics in humans.

**(OR)**

b. Classify nutraceuticals based on its mechanism of action with suitable examples.
- 13 a. Highlight the functions, health claims, additives in the commercial combination of glucosamine, chondroitin, methylsulfonylmethane.

**(OR)**

b. Highlight the properties and metabolism of probiotics.
- 14 a. Outline the uses of various nutraceuticals for weight management.

**(OR)**

b. Compare and contrast the usefulness of tea in various diseases.

- 15 a. Examine the possible contamination and adulteration in nutraceuticals with the respective analytical methods of identification.

**(OR)**

b. Illustrate the usefulness of anti-nutritional factors as beneficial bioactive components in treating non-communicable diseases.

**PART – C**

**(2 x 15 = 30 Marks)**

**Answer any TWO Questions**

- 16 Summarize the relationship between functional foods, health claims and underlying scientific evidence.
- 17 Explain the phytochemicals of nutraceutical importance, their sources and health benefits.
- 18 Describe the role of functional foods and nutraceuticals in preventing and treating cancer.
- 19 Evaluate the synergism and beneficial interactions between various nutraceuticals.

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