



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

**B.Sc. DEGREE EXAMINATION - FOOD CHEMISTRY & FOOD PROCESSING**

**SECOND SEMESTER - APRIL 2013**

**FP 2953 - FUNCTIONAL FOODS AND NUTRACEUTICALS**

Date : 07/05/2013

Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

**Part A**

**Answer all the questions.**

(10 x 2 = 20 marks)

1. What are nutraceuticals?
2. Define Probiotics.
3. Name three foods rich in lycopene.
4. List two functional properties of resveratrol
5. Is quercetin really a wonder sports supplement?
6. Classify nutraceutical substances based on food source.
7. What is the word 'Light' mean in food labeling?
8. Garlic can prevent *Helicobacter pylori* infections that cause peptic ulcer. How?
9. What is HACCP?
10. Mention the different forms of nutraceutical products available in the market?

**Part B**

**Answer any eight questions.**

(8x5=40 marks)

11. What are the functional benefits of soyabean?
12. Write a short note on Polyphenols.
13. Discuss the chromatographic techniques used for the extraction of bioactive components.
14. Bring out the mechanism of action of fish oils as therapeutic agents against Cardiovascular disease.
15. Highlight the uses of Siberian ginseng as a folk medicine.
16. Briefly discuss the bioactive components in Echinacea.
17. Highlight the FDA criteria for the use of food labeled 'Healthy'
18. Discuss the role of saw palmetto in benign prostatic hyperplasia.

19. Explain the physiological mechanism involved after the consumption of caffeine.
20. Minerals also exert nutraceutical potential as pharmacological agents- Justify.
21. Construct a questionnaire to assess consumer's attitude and belief towards functional foods.
22. How are monoclonal antibodies used as tool in bioactive compound analysis?

### Part C

**Answer any four questions.**

(4x10=40 marks)

23. Explain in detail the various health claims meeting the standard of significant scientific agreement.
24. Discuss the efficacy of nutraceutical components against cardiovascular diseases. Highlight recent research findings.
25. Describe the different techniques used in nutrigenomics to measure nutrition-responsive genome activity.
26. How is Recombinant DNA technology exploited for the production of human therapeutics?
27. Classify foods based on their higher content of nutraceutical substances.
28. Describe the significant mechanism of action of mushroom extract and Bee pollen in enhancing immune function.