

2025

M.Sc. 1st Semester Examination
FOOD SCIENCE AND NUTRITION

Paper : FSNC403X0

**(Functional Foods, Nutraceuticals and Oxidative
Stress Management)**

Full Marks : 50

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *four* questions : 2×4=8

1. What are protease inhibitors? Give example.
2. Define prebiotics.
3. Write the name of any two functional foods mentioning the functional compounds.
4. Write any two adverse effects of saponins.
5. What are meant by ROS and RNS?
6. Mention the name of some biomarkers of oxidative stress.

P.T.O.

(2)

Group - B

Answer any *four* questions : $4 \times 4 = 16$

7. What is meant by functional foods? Write the health benefits of functional foods. $2+2$
8. Briefly describe the mechanism of action of resveratrol for its antioxidative properties.
9. Write about the cholesterol reducing properties of phytosterols.
10. Explain the role of oxidative stress in the pathogenesis of cardiovascular diseases.
11. How does inflammation is related to oxidative stress?
12. What are the adverse effects of amylase inhibitors on human health?

Group - C

Answer any *two* questions : $8 \times 2 = 16$

13. Write the characteristics features of good probiotics. Describe the role of probiotics on improving gut health.
14. Write about the link between oxidative stress and cancer development. Briefly discuss about free radical theory of aging.
15. Describe the effects of processing conditions on functional properties of nutraceuticals. Write the importance of microencapsulation for functional foods development.

(3)

16. Write the antinutritional properties of phytic acids. What are the standard health claims for nutraceuticals according to FSSAI?

Internal Assessment : 10 marks
