

21BTH3E2BL

M.Sc. III Semester Degree Examination, April/May - 2023

BIOTECHNOLOGY

Food Technology and Nutrigenomics

Time : 3 Hours

Maximum Marks : 70

Notes : (i) Answer **any five** of the following questions with Question No.1 (Q.1) compulsory, each question carries **equal** marks.
(ii) Draw neat diagrams wherever necessary.

1. (a) Define Nutraceuticals, and explain its various classes. **7**
(b) Brief about the importance of phytochemicals in nutraceuticals. **7**
2. (a) Enlist the various functional foods and discuss their health benefits. **7**
(b) How to determine the daily nutrients recommendation ? **7**
3. (a) Differentiate the endogenous and exogenous free radicals. **7**
(b) Explain what are the best sources of antioxidants. **7**
4. (a) Define antinutrients, explain their adverse effects. **5**
(b) Explain how protease and amylase inhibitors works as antinutrients. **5**
(c) Anti-nutritional factors present in pulses. **4**
5. (a) Explain polymorphisms and how it affects the uptake and transport of polyunsaturated fatty acids. **7**
(b) Describe the role of nutrigenomics in modulating the risk of diabetes and CVD. **7**
6. (a) What are the antidiabetic effects of functional foods ? **7**
(b) Define antioxidants, explain types of antioxidants. **7**
7. (a) Discuss on types of nutritional assessment. **7**
(b) Explain the scope and importance of nutrigenomics in human health and industry. **7**
8. (a) What are the nutraceuticals supplement markets in India ? **7**
(b) Describe the applied aspect of nutraceuticals in controlling the chronic diseases. **7**

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