



M.Sc. III Semester Degree Examination, April/May - 2024

BIOTECHNOLOGY

Food Technology and Nutrigenomics

(NEP)

Time : 3 Hours

Maximum Marks : 70

Note : 1. Answer **any five** of the following questions with **Question No.1 (Q1) compulsory**, each question carries **equal** marks.

2. Draw neat diagrams wherever necessary.

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| 1. | (a) | Define Nutraceuticals and explain its various classes. | 7 |
| | (b) | Brief on the importance of vitamins and phytochemicals as nutraceuticals. | 7 |
| 2. | (a) | Discuss on various functional foods act as a remedy for diabetes and cardiovascular diseases. | 7 |
| | (b) | How to determine the daily nutrients recommendation ? | 7 |
| 3. | (a) | Explain free radicals and its types. | 7 |
| | (b) | Explain, what are the best sources of antioxidants ? | 7 |
| 4. | (a) | Define anti-nutrients, explain their adverse effects. | 5 |
| | (b) | Brief on methods for elimination of anti-nutrients. | 5 |
| | (c) | Explain how protease inhibitors work as anti-nutrients. | 4 |
| 5. | (a) | Explain various types of nutrition and gene interactions. | 7 |
| | (b) | Discuss on interaction of phytochemicals, folic acid and caffeine on gene. | 7 |
| 6. | (a) | What are the anti-diabetic 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 role of nutraceuticals in controlling chronic diseases. | 7 |

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