

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

M.Sc.-III Semester (BT)

COURSE CODE(CREDITS):22MSIBT311(02)

MAX. MARKS: 15

COURSE NAME: Food Biotechnology

COURSE INSTRUCTORS:Dr. Anil Kant and Dr. V. Garlapati

MAX. TIME: 1 Hour

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Note: (a)All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

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Q.1

- A. What do you understand about the food fermentation and write the benefits associated with food fermentation compared to intact foods? Mention the nutritional benefits of fermented foods? [3]
- B. Mention the well known fermented foods associated with "Russia", "Korea" and "Latin America"? [3]

Q.2

- A. Enlist and elaborate different subfields of food biotechnology along with latest frontier areas of research and development in respective fields. [2]
- B. Discuss two following intervention of biotechnology in food production in details including genesis, basis, companies and stakeholders involved a) Genetically modified chymosin b) Burger that bleeds c) Cultured meat [3]

Q3

- A. Review the most possible causes of food spoilage? [2]
- B. What type of microorganism out of molds, bacteria, yeast are likely to initiate spoilage of a food with the following characteristics? Give an explanation for your choice of spoilage microorganism. i) A food with less than 30% water content ii) A food with complex sources of nutrients iii) A food with readily available nutrients and high water content iv) A food with moderate water activity. [2]