

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2024

B.Tech-VI Semester (Biotech)

COURSE CODE(CREDITS): 18B11BT612 (3)

MAX. MARKS: 25

COURSE NAME: Food and Agricultural Biotechnology

COURSE INSTRUCTORS: Dr. Uday and Garlapati

MAX. TIME: 1 Hour 30 Minutes

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

1. What are the different bioactive functional components of milk and write in detail about the protein fractions of milk along with their health benefits? [2.5 Marks] (CO2,4)
2. Write in detail about the making, composition of cultured milks "TAETTE" and "KUMISS"? [2.5 Marks] (CO2,4)
3. How does "Nutraceutical" differ from "Pharmaceutical"? Give any two examples along with the source and potential health benefits of "Phytoestrogens" and "Polyphenols"? [2.5 Marks] (CO2)
4. What are the main characteristics of "Prebiotics"? Explain in detail about the type, utilization and health benefits associated with the different fermented dietary fibre products? [2.5 Marks] (CO2)
5. Discuss the importance of D-Value, Z-Value and F_0 -Value in food processing. Describe the process of pasteurization and the food items that are pasteurized. [5 Marks] (CO1)
6. Can freezing kill microbes? Write a note on the types of freezing methods and differentiate slow freezing Vs rapid freezing. [5 Marks] (CO1)
7. Curing and smoking methods used in food preservation. How would they impart flavor? Explain. [5 Marks] (CO1)