

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2024

B.Tech-VI Semester (BT)

COURSE CODE(CREDITS): 18B11BT612(3)

MAX. MARKS: 35

COURSE NAME: Food & Agricultural Biotechnology

COURSE INSTRUCTORS: Dr. Uday & Dr. Garlapati

MAX. TIME: 2 Hours

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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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1. Discuss about the different driving forces which insist on biotechnological production of flavours over chemical approaches? [3 Marks]
2. Write about the "Pyrazines" and "Lactones" as flavouring materials with 2 examples and corresponding flavours ? [3 Marks]
3. Write in detail about the "Liquid Carbon Dioxide extraction" and "Molecular Distillation" approaches used for flavour extraction? [4 Marks]
4. What are the different established changes brought and criteria to select as a starting culture in the dairy industry? How does the DVS cultures helpful for cost savings over bulk starter cultures discuss in detail? [5 Marks]
5. With a neat diagram discuss the processes involved in protoplast fusion. What are the advantages of micro propagation over conventional propagation? [4+3 Marks]
6. Design a strategy to produce insect resistant crops and hence would lower pesticide usage. Mention some crops which are insect resistant. [3 Marks]
7. Which crop 'Flavr Savr' denotes and how technological advancement resulted in production of such crops? Mention the mechanism/scientific intervention. [3 Marks]
8. Explain the concept of edible vaccine. How will it be advantageous? Give your views. [3 Marks]
9. Acids can serve as food acidulants and preservatives. Name some acids which are used as preservatives and write a note on sorbic acid. [4 Marks]