

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

B.Tech-VI Semester (HT/BI)

COURSE CODE (CREDITS):18B11BT612 (3)

MAX. MARKS: 35

COURSE NAME: Food and Agricultural Biotechnology

COURSE INSTRUCTORS: Dr. Uday & Dr. Garlapati

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

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

Q.No	Question	CO	Marks
Q1	Write about the "umami flavours" and "sour taste enhancers" used in the food Industry? Summarize how "Liquid CO ₂ extraction" differs with the "molecular distillation" in isolation of flavours in terms of principle and procedure?	CO2	5
Q2	Discuss about the driving forces to turn into biotechnological-based flavour production? Briefly describe the "Lactones as flavours" and "colour from the molds" as a part of "Biotechnological production of flavours and colours"?	CO4	5
Q3	Explain in detail about the "Bacteria", "Yeast" and "Molds" as the starter cultures in the fermented foods by citing the microbes and related fermented food? Abbreviate and mention the location of culture collections of "NCIB" and "ATCC"?	CO3	5
Q4	With a neat diagram explain the different types of starter cultures propagation in the dairy industry? How does the "DVS starter culture" contribute to cost savings than the "Bulk starter culture" emphasizes on the basis of "time" and "cost" savings?	CO2	5
Q5	Differentiate conventional plant breeding and intervention of biotechnology in agriculture. Provide suitable examples to support your views.	CO5	5
Q6	Summarize the methods used in plant transgenesis and emphasize on protoplast fusion	CO5	5
Q7	Assess the ethical aspects involved in the intervention of biotechnology in agriculture. Explain with examples.	CO6	5