

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT**

**Supplementary Examination- 2026**

**M.Sc -III<sup>rd</sup> Semester (BT)**

**COURSE CODE (CREDITS): 22MS1BT311 (02)**

**MAX. MARKS: 75**

**COURSE NAME: Food Biotechnology**

**COURSE INSTRUCTORS: Dr. Garlapati Vijay Kumar**

**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	Marks
Q1	Explain in detail about the different "Flavour Enhancers and Potentiators", "Food Colours", "Food additives" and "Nutrient Supplements" utilized in the Food Industry?	12 M
Q2	Summarize the functions of different ingredients (basic + other ingredients) utilized in bread making by emphasizing more on "Leavening agents" and "Dough Conditioners"?	12 M
Q3	What meant by the "Food Preservation" and summarize the advantages associated with the food preservation? List the different types of "Food preservation techniques" and elaborate the "Food preservation techniques by use of lower temperature and anaerobic conditions"?	12 M
Q4	Discuss in detail about the "HACCP concept" utilized in the food industry by emphasizing the "objectives", "List of seven principles", "Advantages over current systems" and "Benefits"?	12 M
Q5	Give a clear picture on "Starter cultures classification based on the preservation and inoculation methods"? Write about the different steps/stages utilized in the manufacture of different starter cultures?	12 M
Q6	Write about the functional components related to the "phytoestrogens", "dietary fibres" and "vitamin-like compounds" under "Nutraceuticals"?	7.5 M
Q7	How the ideal characteristics of "probiotics" differ with the "prebiotics" by giving the examples and benefits of each of them?	7.5 M