

7

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

M.Sc-III Semester (BT)

COURSE CODE (CREDITS): 20MS1BT311 (3-0-0)

MAX. MARKS: 15

COURSE NAME: Bioprocess Engineering and Technology

COURSE INSTRUCTORS: Dr.Garlapati Vijay Kumar

MAX. TIME: 1 Hour

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	What are the features of bioprocessing which makes priority over chemical processes? Explain the different steps involved in Bioprocess Development?	3M
Q2	Summarize the enzymes used in fruit, wine industries along with the functions? What are therapeutic enzyme used for cyanide poisoning, heart attack and Inflammation?	3M
Q3.	As a consultant, you have been approached by industrialist for choosing the cell type for his bioprocess product. Explain him, the advantages and disadvantages associated with the plant cells, mammalian cells and microbial cells? Give any two examples for Plant-, mammalin cells- and microbial cell-based bioproducts?	3M
Q4.	How the Submerged fermentation differ with solid state fermentation? Elaborate the biotechnological advantages and its consequences associated with the SSF over SmF?	3M
Q5	Write about the important characteristics in choosing the microbe for Industrial Biotechnology? Differentiate Firmicutes with actinomycetes & homofermenters with heterofermenters of LAB?	3M

@@@@@@@@@@@@@@@@ ALL THE BEST @@@@@@@@@@@@@@@@@@