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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -3 EXAMINATION, December 2018

Ph.D. 1st Semester (BT/BI)

Course Code: 18M1WBT131

MAX. MARKS: 35

Course Name: Industrial Enzyme Technology

Course Credits: 03

MAX. TIME: 2 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Marks are indicated in square brackets against each question

Q 1 Define the following terms. (1×3= 3 marks) **CO- I**

(a) Prosthetic group

(b) Holoenzyme

(c) Apoenzyme

Q2 Explain the mechanism of metal ion catalysis. Give two examples. (2) **CO- II**

Q3 Write a short note on serine proteases and their industrial applications. (2) **CO- IV**

Q4 What are the different methods of adaptation of halophiles at high salinity conditions? (3) **CO- VI**

Q 5 Write a short note on NTN Hypothesis of evolution of enzymes. (3) **CO-V**

Q6 Write an essay on restriction enzymes. Give two examples. Discuss the uses of restriction enzymes in biological field. (4) **CO-IV**

Q7 Give the two examples of enzymes used to modify the texture and induce the tenderness in meats and to improve its chewability. (4) **CO-V**

Q8 What are the major advantages and disadvantages of enzymes used in the food industry. (4) **COV**

Q9 Describe the Michaelis menten rate law to study the enzyme kinetics. What are the two basic assumptions must be met for the michaelis menten equation? (5) **CO-IV**

Q10 What are the different types of mutagenesis of enzymes? Discuss the various steps involved in the site directed mutagenesis (5) **CO VI**