

(72)

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATION- 2025

M. Tech. -I Semester (BT)

COURSE CODE (CREDITS): 18M1WBT134 (3)

MAX. MARKS: 15

COURSE NAME: MICROBIAL ECOLOGY

COURSE INSTRUCTORS: AKN

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	CO	Marks
	Section I		
Q1	a) Give one example of a methanogen and its habitat.		1
	b) Name one microbe involved in oxygen production in aquatic systems.		1
	c) What are decomposers? Give one microbial example.		1
	Section II		
Q2	Discuss the various factors which affect the presence of microorganisms in aquatic ecosystem.		2
Q3.	Write a brief note on carbon cycle and give the examples of microbes that plays important role at various steps in carbon cycle.		2
Q4.	What is the role of microbes in various steps of Nitrogen cycle? Explain briefly.		2
	Section III		
Q5	What type of cell structure do archaebacteria have? Give two unique features of archaebacterial cell membranes. Give a brief account of different phylums of archaebacteria		3
Q6	What are the various zones in a lentic environment on the basis of ligh penetration. Explain with the help of a diagram.		3
	Total		15