

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATIONS-2024

B. Tech. BT/Bi-3rd Semester

COURSE CODE (CREDITS): 18B11BT414

MAX. MARKS: 15

COURSE NAME: Microbiology

COURSE INSTRUCTORS: Dr. Ashok Kumar Nadda

MAX. TIME: 1 Hour

*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

Section I

Q1. Answer the following questions

- a) During the growth of microorganisms, in which phase of their growth spore formation occurs? (Mark 1)
- b) What are the contributions of Edward Jenner and Oliver Holmes in the development of field of microbiology? (Mark 1)
- c) What is transport medium? Give the two examples of the Transport media (Mark 1)
- d) Define the terms protoplast and spheroplast? (Mark 1)
- e) How does the Redi's and Jablot's experiment disapprove the theory of abiogenesis? (Mark 1)

Section II

- Q 2 Discuss the various postulates of disease Transmission given by Robert Koch? (Marks 1.5)
- Q 3 How the selective media does differ from Differential media? Give examples. (Marks 1.5)
- Q 4 What is pure culture of microorganism? How can you obtain a pure culture from the given sample containing mixed culture or variety of microorganisms? (Marks 2)

Section III

- Q 5 What are the functions of peptidoglycan layer in bacterial cell wall? Explain the molecular structure and its protein and carbohydrate units with the help of suitable diagram. (Marks 2.5)
- Q 6 Discuss the various phases in the growth curve of bacteria. What is the reason behind very less growth observed during the initial time period after inoculation? Explain with the help of diagram (Marks 2.5)