

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATIONS-2022

B. Tech-III Semester (BI)

COURSE CODE (CREDITS): 18B11BI312

MAX. MARKS: 15

COURSE NAME: MICROBIOLOGY & IMMUNE SYSTEM

COURSE INSTRUCTORS: Dr. Rahul Shrivastava

MAX. TIME: 1 Hour

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

- Q1. You have isolated a new bacterium from unexplored regions of Himachal Pradesh. Design an experiment / method to culture the bacteria, and then to study its nutritional requirements. (CO-I) [3]
- Q2. Give reasons **FOR** or **AGAINST** the following statements: (CO-II) [1 X 4 = 4]
- A. 'Pour plate technique' can be used for counting the number of microbes in a biological sample.
 - B. Selective media inhibits growth of selected microorganisms.
 - C. Gram Negative bacteria appear colourless after treatment with alcohol during Gram Staining.
 - D. Gram Positive bacteria may appear colourless after prolonged treatment with alcohol during Gram Staining.
- Q3. Draw labeled diagrams of Gram-negative and Gram-positive and cell walls. Give important differences between Gram-negative and Gram-positive bacteria. (CO-I) [4]
- Q4. Discuss Koch's postulates with suitable diagrams; discuss its significance in the development of medical microbiology. (CO-II) [4]