

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2024

M.Sc.-I Semester (Microbiology)

COURSE CODE (CREDITS): **21MS1MB111**

MAX. MARKS: 15

COURSE NAME: **General Microbiology and Bacteriology**

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) What is the primary function of a bacterial cell wall? What are the basic components of a bacterial cell wall? [Mark 1]
- b) Discuss the contribution of Louis Pasteur in the development of field of microbiology? [Mark 1]
- c) Which structure do bacteria use for movement? Name the bacterium that causes tuberculosis. [Mark 1]
- d) What is a selective medium? Give an example of selective medium and the microorganism that can be grown onto the same? [Mark 1]
- e) What is the difference between a genus and a species? What is a species in microbial taxonomy? [Mark 1]

Section II

Q 2 Discuss the various postulates of germ theory given by Robert Koch. How do these postulates establish the relationship between microbial pathogens and human diseases? [Marks 1.5]

Q 3 Discuss the basis of whittaker's system of classification. [Marks 1.5]

Q 4 Discuss the various groups of bacteria on the basis of flagella present on their surface [Marks 2]

Section III

Q 5 With the help of suitable example explain the complex medium, transport medium and differential medium? What is the purpose of agar in solid culture media? **[Mark 2.5]**

Q 6 With the help diagram explain the difference between Gram positive and Gram Negative bacteria. Give suitable examples. **[Mark 2.5]**

T1 Examinations september 2024