

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT**

**TEST -1 EXAMINATIONS-2022**

B. Tech. BT/BI-3rd Semester

COURSE CODE (CREDITS): **18B11BT414**

MAX. MARKS: 15

COURSE NAME: **General Microbiology**

COURSE INSTRUCTORS: **Dr. Ashok Kumar Nadda**

MAX. TIME: 1 Hour

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

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**Section I**

**Q1. Answer the following questions**

- a) What is the source of agar and name the scientist the used the agar for first time as a solidifying agent to harden media? **(Mark 1)**
- b) Discuss the contribution of Louis Pasteur and Alexander Fleming 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) Give the examples of lactose fermenting bacteria? Which culture media can be used to grow lactose fermenting bacteria? **(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 basis of Carl Woese three domain system of classification. What is binomial system of nomenclature of microbes ? **(Marks 1.5)**

**Q 3** What is 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 1.5)**

**Q 4** How the selective media does differs from Differential media? Give examples. **(Marks 2)**

**Section III**

**Q 5** 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 2.5)**

**Q 6** With the help diagram explains the difference between Gram positive and Gram Negative bacterial cell wall. Give suitable examples. **(Marks 2.5)**