

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Sep 2018

B.Tech III Semester

COURSE CODE: 14B11BI311

MAX. MARKS:15

COURSE NAME Microbiology and Immune System

COURSE CREDITS: 4

MAX. TIME: One Hr

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q1. Give reasons for the following statements.

[1.5 X 3 = 4.5]

- i. High concentration of salt in pickles increases its shelf life.
- ii. Pasteurization of liquid food items is preferred over autoclaving even though it does not kill 100% microorganisms.
- iii. Growth measurements for bacterial counting using a spectrophotometer are not accurate and need not be verified using 'viable count method'.

Q2. Discuss Koch's postulates with diagrams; describe its significance in the development of medical microbiology.

[4]

Q3. Draw a typical bacterial growth curve. Describe each phase of the curve and its significance. [4]

Q4. Describe 'Membrane filtration' and 'Direct Microscopic' methods of microbial growth measurements with examples and potential applications.

[2.5]