

Sudhir sga

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION- Sept.2017
B.Tech III Semester (Biotechnology)

COURSE CODE: 10 B11BT313
COURSE NAME: Microbiology
COURSE CREDITS: 04

MAX. MARKS: 15

MAX. TIME: 1Hour

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

Q1: a) How will you isolate and identify *E. coli* from water sample. Elaborate all steps.

b) Give two examples of selective mechanisms occurring in nature that lead to the predominance of particular kinds of microorganisms.

c) How do Bacteria and Archea differ from each other? [2+2+1]

Q2: a) Explain the nutritional classification of microorganisms.

b) Enlist similarities and differences between pour plate and spread plate technique of microbial culturing.

c) What is Numerical Taxonomy and explain its usefulness in microbial classification. [2+2+1]

Q3: a) "Louis Pasteur demonstrated the principles of immunization using culture of chicken cholera". Discuss this phenomenon and his experiment.

b) List all the business activities, you can think in your communities that are directly linked to Microbiology.

c) 60 μ l of water sample was plated on Luria Agar medium. After incubation at 37° C, 210 colonies appeared. Calculate cfu/ml in the water sample. [2+2+1]