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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- Oct 2019

M.Sc. Ist Semester

COURSE CODE: 18MS1BT111

MAX. MARKS: 25

COURSE NAME: GENERAL MICROBIOLOGY

COURSE CREDITS: 3

MAX. TIME: One Hr 30min

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. ALL PARTS OF A QUESTION MUST BE ATTEMPTED AT THE SAME PLACE

Q1. a. Describe various ways in which Pentose Phosphate cycle is useful to a microbial cell (CO - III) [3]

b. Explain how fermentation products can be used for the identification of bacteria. Provide specific examples to support your answer. (CO - III) [2]

c. What function does the name of a bacterial species serve? (CO - I) [1]

Q2. With reference to Antibiotics, answer the following (CO - III) [2 X 3 = 6]

i. Application and limitations of 'broad' and 'narrow' spectrum antibiotics

ii. Applications of Antibiotic Sensitivity Testing (AST)

iii. Agar dilution method for AST

Q3. Correct the following **wrong statements** and give reason for your answer. (CO - II) [2 X 4 = 8]

i. Heat sensitive culture media and antibiotic solutions are sterilized by Autoclaving.

ii. Silver chloride is used to kill algae in pools and fish tanks.

iii. Packaged spices, meat, microbiological plastic ware and medical supplies are sterilized by X-rays.

iv. 95% ethyl alcohol is a better antibacterial agent than 75% ethyl alcohol.

Q4. Discuss the classification of bacteria on the basis of requirement of Oxygen for their growth and metabolism. Give details of each group and enzymes involved. (CO - III) [5]