



THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Re-accredited (2nd Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

Backlog Arrear Examination, March 2021

BOT 3429/2432/2434 MICROBIOLOGY AND FERMENTATION TECHNOLOGY

Time: 3 Hrs

Marks: 75

I. Answer any Five of the following each not exceeding 4 pages.

(5X15=75)

1. Write a detail note on the history of microbiology.
2. Explain natural and phylogenetic classification.
3. Draw and explain the bacterial ultra structure.
4. Discuss the nitrogen metabolism and add a note on symbiotic and asymbiotic nitrogen fixation.
5. List the types of bioreactors and explain any one in detail.
6. Discuss the procedure for alcoholic beverage production.
7. What is sterilization? Explain physical and chemical methods of sterilization.