



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 2411

Microbial Physiology

Time: 3hrs

Marks: 75

I. Answer any FIVE of the following each not exceeding four pages: (5x15=75)

1. Explain the structure and transport across biological membranes
2. With suitable illustrations explain bacterial photosynthesis
3. Discuss the steps involved in carbohydrate breakdown in glycolysis
4. Highlight the significance of pentose phosphate pathway
5. Discuss the role of microbes in nitrogen cycle
6. Explain the steps in biological nitrogen fixation with diagrams
7. Define and explain the uniqueness about methanogens and sulphur utilizing bacteria