



# THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

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

## Backlog Arrear Examination, March 2021

**MIM 403/4403**

**Biochemistry & Microbial Physiology**

**Time:3 Hrs.**

**Marks: 75**

**Section A**

**Answer any FIVE questions**

**5 × 15 = 75 marks**

1. Discuss the structure, chemistry and functions of bacterial cell membranes.
2. Classify and explain in detail the various types of carbohydrates. Add a note on their source, properties and biological functions.
3. Describe the mechanism of action of antimicrobial drugs. Add a note on the factors affecting effectiveness of antimicrobial drugs.
4. Discuss the various types of chemical bonds with suitable illustrations.
5. Write the principle and mechanisms involved in active, passive and facilitated transport with suitable illustrations.
6. Describe the following:
  - a) secondary structures of proteins with suitable examples.
  - b) physiology of bacterial sporulation
7. Describe the aerobic electron transport chain with diagrams.

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