



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

MIM 4407

MOLECULAR BIOLOGY

Time: 3 Hrs.

Max: 75 Marks

Answer any FIVE questions (5 x 15 = 75)

1. Discuss the various types of mutagens and explore their mutagenic effects.
2. Describe the molecular events in the transcription of prokaryotes.
3. Explain the salient features of genetic code. Add a note on Wobble hypothesis.
4. Give a detailed account on the regulation of gene expression by *lac* operon.
5. Discuss the types of transposons in bacteria and explain the mechanism of transposition.
6. Write the principle and procedures involved in the isolation of plasmids.
7. Narrate the mechanisms of DNA replication in prokaryotes.
