



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

ZOO 3443/2428

MOLECULAR BIOLOGY

Time: 3 Hrs

75 MARKS

Answer any **FIVE** questions

5x15=75 Marks

1. With a neat illustration, explain a DNA double helix.
2. Explain Meselson and Stahl's experiment with a suitable diagram.
3. What is transposition? Explain the different types of transposable elements.
4. Elucidate the steps involved in prokaryotic protein synthesis.
5. Describe the process involved in any two DNA repair mechanisms.
6. Give an account on DNA binding proteins.
7. What is meant by gene expression? Describe the genetic map of a lac operon.
