

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 291 BIOPHYSICS & MOLECULAR BIOLOGY Max: 75 marks

Answer any FIVE questions $(5 \times 15 = 75)$

- 1. Discuss the structure of a mammalian eye and the mechanisms of photoreception.
- 2. Write the principle, components and applications of spectrophotometer.
- 3. Describe the molecular events involved in the replication of DNA in prokaryotes.
- 4. Explain the principle and applications of PCR.
- 5. Narrate the molecular mechanisms involved in DNA recombination.
- 6. Discuss the stages and molecular events in prokaryotic transcription.
- 7. Describe the double helical structure of DNA proposed by Watson and Crick.
