



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

PGB 5504

Biotechnology

Time: 3hrs

Marks: 75

I. Answer any FIVE of the following each not exceeding four pages. (5X15=75)

1. Differentiate plasmid vector from binary vector and show how Ti plasmid is modified into a tool for gene transfer
2. Find a role for RFLP, AFLP and RAPD in DNA diagnosis.
3. What are restriction enzymes? How well they are used in genetic engineering?
4. Enumerate the genes with agricultural significance and show how plants with herbicides resistance, stress tolerance and enhancement of shelf life in flowers and fruits are produced.
5. Compare the different types of blotting techniques and present their significance.
6. Review the techniques of the strain development in a useful microbe of your choice with an illustration.
7. Explain fermentor design and show how upstream and down processing adjusted, a protocol for synthesis of secondary metabolites and life saving antibiotic.