



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

BOT 3534/3521
Plant Biotechnology

Max: 75marks
Time: 3hrs

I. Answer any FIVE of the following each not exceeding four pages. (5x15=75)

1. Elaborate on history and scope of plant tissue culture.
2. Discuss the protocol for protoplast isolation and fusion.
3. Show how cells act as a repository for the production of secondary metabolites.
4. Review the methods and applications of enzyme immobilization.
5. Find how Antisense RNA technology is significant in molecular research.
6. Critically evaluate the benefits and applications of GM crops.
7. Give an account on IPR and patenting.