



# THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Re-accredited (2<sup>nd</sup> Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

## Backlog Arrear Examination, March 2021

ZOO 3545/3548

PLANT BIOTECHNOLOGY

TIME: 3hrs

Marks: 75

Answer any Five Questions

(5x15 = 75)

1. Describe the Scope and history of Plant tissue Culture.
2. Explain the importance of epical meristem surface sterilization, and inoculation onto MS medium for Callus formation.
3. Draw a neat sketch of Plant and mention the method of Micropropagation.
4. What is somoclonal variation ? Discuss the infrastructure of a plant tissue culture lab.
5. What is Totipotency? Elucidate the isolation, fusion and culturing protoplast.
6. Give a typical flower structure and add note on transgenic plants.
7. Write an essay on Agrobacterium mediated gene transfer for obtaining crown gall like new genomic expressions in dicot plants.