



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 3225/3228/3236/3238/3248/3423

Plant Tissue Culture

Marks: 75

I. Answer any FIVE of the following questions each not exceeding 4 pages. (5X15=75)

1. With a neat label diagram present a lab layout for ideal tissue culture laboratory.
2. What is asepsis? How will you achieve sterilization of medium and explants?
3. Analyze the composition of MS medium and show why it is popular than others.
4. Differentiate callus culture from suspension culture.
5. How will you raise plant through somatic embryo? Comment on its applications.
6. How will you isolate the culture & fuse plant protoplast?
7. Furnish an account on *in vitro* production of plant metabolites.