



# 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

**PGB 5503**

**Morphogenesis**

**Time: 3hrs**

**Marks: 75**

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

1. How plants are different from animals in growth and development. Identify the different phases of plant growth.
2. Enumerate the classical theories proposed to explain the organization of shoot apical meristem and draw a perspective on its molecular regulation.
3. Illustrate cell cycle and account for its dynamics.
4. Why should plants be polar in their organization? Study the mechanism of polarity and comment on its significance.
5. Evaluate ABC model of florogenesis and establish flower as a condensed and modified shoots.
6. Enlisting the plant hormones show how their interactions regulate plant development.
7. Concisely present the various methods of plant propagation.