



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 1426/BOT 2444/BOT 2315 Cell Biology and Genetics

Marks: 75

Date: 15.3.21

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

1. Compare ultrastructure of eukaryotic plant cell with that of prokaryotic plant cell.
2. Explain different stages of meiosis.
3. Describe lysosome polymorphism.
4. Explain the organization of chromosome and write notes on sex chromosome & giant chromosome
5. Show how light and dark reaction are compartmentalised within Chloroplast.
6. Write a checker board and explain dihybrid cross
7. With suitable examples, explain multiple alleles of polygenic inheritance.