



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

BCH 1432/2421

Cell Biology & Genetics

Max Marks: 75

Time: 3 Hrs.

PART A

I. Answer any Five questions each not exceeding 4 pages:

(5 x 15 = 75)

1. What is TEM? Explain its instrumentation and applications with a neat diagram.
2. Write a detail account on fluid mosaic model of plasma membrane with a neat diagram.
3. Explain various phases of mitosis with a neat diagram.
4. Define crossing-over. Describe the types of crossing-over with suitable diagrams.
5. Explain the factors that affect Hardy-Weinberg equilibrium.
6. Differentiate prokaryotic cell from eukaryotic cell.
7. Describe the structure and function of endoplasmic reticulum with neat schematic representation.