



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

PGB 5419

Nanobiology

Time: 3hrs
Marks: 75

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

1. List the allotropes of the carbon and account for different nanomaterials prepared from them.
2. Review the methods of biosynthesis and characterization of nanoparticles.
3. Prepare illustrations and draw a flowchart to explain DNA microarray and comment on its significance.
4. How Atomic Force Microscopy is different from Scanning Electron Microscope in principle and design.
5. Review the applications of nanoparticles in drug delivery.
6. Differentiate siRNA from antisense RNA and discuss their significance in molecular research.
7. Illustrate the techniques FISH & MALDI -ToF and highlight their uses.