



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 3633

Analytical Techniques

Max Marks: 75

Time: 3 Hrs.

PART A

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

(5 x 15 = 75)

1. Explain the principle, instrumentation and applications of STEM.
2. Elaborate the principle, instrumentation and applications of Lyophilization.
3. Describe the principle, types and instrumentation of HPLC with a neat diagram.
4. What is a protein? Explain the principle and instrumentation involved in PAGE with suitable diagram.
5. What is radiation? Explain the measurement of radioactivity using solid and liquid scintillation counters with suitable diagram. Add a note on the composition of the scintillation fluid.
6. What is DNA? Describe in detail the principle and instrumentation involved in Agarose gel electrophoresis with diagrams.
7. Explain the principle, instrumentation and applications of GLC.