



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

PHY 1554 ELECTRODYNAMICS

Time: 3 Hrs

Marks: 75

Part-A

Answer any FIVE questions

(5x15 = 75)

1. Obtain the expression for the Columbic force on a test charge due to a line of charge.
2. Determine the electric field due to a dipole on a point at a distance ‘x’
3. (a) What is capacitance? (b) How to calculate capacitance of a parallel – plate capacitor?
4. Derive the current voltage relationship of a charging capacitor using RC circuit
5. Describe on the Hall experiment and obtain the expression for Hall coefficient.
6. Distinguish between Dia, Para and Ferro magnetic materials.
7. Write short notes on the different regions of electromagnetic spectrum, their origin and applications.
