

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

Course Code: PHY 2573 Time: 3 hours

Course Title: Analog Electronics Max. Marks: 75

I. Answer **ANY FIVE** questions.

 $(5 \times 15 = 75)$

- 1. Describe the working of half wave and full wave rectifier with its neat circuit diagram and its input and output waveforms.
- 2. Explain the working of the following with a neat circuit diagram and waveforms.(a) positive and negative clipper (b) positive and negative biased clipper.
- 3. Explain in detail the common emitter amplifier with suitable circuit diagram and hybrid parameters.
- 4. With necessary circuit diagram explain the working of a class B amplifier.
- 5. Describe the working of Hartley and Colpitt's oscillator with its neat circuit diagrams.
- 6. Describe the working of inverting and non inverting amplifier and derive the expression for gain.
- 7. Describe the characteristics of JFET with its necessary circuit diagrams and graphs.