

## THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University) Re-accredited (2<sup>nd</sup> Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

## Backlog Arrear Examination, March 2021

COURSE CODE: PHY 2455/1553 COURSE TITLE: Energy Physics

Time: 3 hrs Max.Mark: 75

## Answer any five of the following questions:

5x15=75 marks

- Explain the different types of Conventional and non conventional energy sources and its availability in detail.
- Describe the construction and working of different types of pyroheliometer and Sunshine Recorder in detail.
- 3) Elucidate the working principle of solar water heater system with suitable diagram.
- 4) Explain Parabolic trough Concentrating collector with neat diagram.
- Derive the expression for the forces on blades and thrust on turbines for the propeller type wind machine.
- Describe the theory of electrical energy storage and explain how energy is obtained from cell with diagram.
- 7) Discuss the various types of energy auditing in detail.