## CERTICICATE IN ENERGY TECHNOLOGY AND MANAGEMENT (CETM)

## Term-End Examination June, 2023

OEY-003 : ENERGY MANAGEMENT : AUDIT AND CONSERVATION

Time: 3 Hours Maximum Marks: 70

Note: (i) Attempt any seven questions.

- (ii) All questions carry equal marks.
- 1. Distinguish between the following: 10
  - (a) Renewable energy source and Nonrenewable energy source
  - (b) Thermometer and Thermocouple
- 2. Discuss the principles of developing Energy Balance. Why is it important for Energy Auditors?
- 3. Elaborate the basic principles of Integrated rural energy planning.

- 4. Explain in brief the short-term alternatives to conserve energy in steel industries.
- 5. Discuss the advantages of optical mix of renewable energy technology with the help of a suitable example.
- 6. (a) Explain the process of evaporative cooling.

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- (b) How do the flow and speed measuring equipments help in energy audit? 5
- 7. How does Inflation rate affect the payback period? Derive the expression for payback period considering inflation rate.
- 8. Discuss the energy conservation measures applicable in transport sector.
- 9. Write short notes on any *two* of the following:

 $5 \times 5 = 10$ 

- (a) Animal Power
- (b) Energy Management
- (c) Sankey Diagram