## CERTIFICATE IN ENERGY TECHNOLOGY AND MANAGEMENT

## (CETM)

## Term-End Examination December, 2020

## OEY-001: ENERGY RESOURCES AND CONVERSION PROCESSES

Time: 3 Hours Maximum Marks: 70

Note: Answer any seven questions. All questions carry equal marks.

- 1. Describe in brief the fossil fuels. Write down advantages and disadvantages of fossil fuels. 10
- 2. List down various renewable energy sources and give their advantages and disadvantages.

10

3. Describe the construction and working of a photovoltaic (PV) solar cell. Mention some materials used as semiconductors in PV cells. 10

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- 4. Explain, in detail, the process parameters affecting biogas production. 10
- Discuss in detail the significance of nuclear energy in the present scenario and also give its environmental impact.
- 6. Define Biofuels and explain 1st and 2nd generation biofuels.
- 7. Explain the construction and working of a fuel cell along with its components. 10
- 8. Write short notes on the following: 5, 5
  - (a) Geothermal energy
  - (b) Wind energy