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**OEY-001** 

## CERTIFICATE IN ENERGY TECHNOLOGY AND MANAGEMENT

(CETM)

## Term-End Examination December, 2021

## OEY-001 : ENERGY RESOURCES AND CONVERSION PROCESSES

Time: 3 Hours Maximum Marks: 70

Note: Answer any seven questions. All questions carry equal marks. Use of scientific calculator is permitted.

- 1. Describe in detail, any *four* conventional energy sources.
- 2. Enlist the various renewable energy sources and give their advantages and disadvantages.
- 3. Explain the steps involved in the process of biomethanation with the help of a flowchart. 10

	affecting the biogas production.					10
j.	Discuss	the	various	direct	energy	conversion

4. Explain, in detail the process parameters

- 5. Discuss the various direct energy conversion processes.
- 6. Explain how the wind energy can be utilized for water pumping and off grid power generation.
- 7. Describe in brief fossil fuels. What are the advantages and disadvantage of fossil fuels?

10

- Discuss in detail the significance of nuclear energy in the present scenario and also give its environmental impact.
- 9. Write short notes on the following:  $2\times 5=10$ 
  - (a) Geothermal energy
  - (b) Tidal energy

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