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CERTIFICATE IN ENERGY TECHNOLOGY AND MANAGEMENT (CETM)

Term-End Examination December, 2023

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 *three* conventional energy resources.
- 2. Discuss in detail the various active and passive applications of solar energy. 10
- 3. Explain, in detail, the operation and maintenance of a biogas plant.
- 4. What is greenhouse effect? Explain the major contributors which cause this effect.

- 5. Name some biofuels and explain the 2nd and 3rd generation biofuels.
- 6. Discuss, in detail, the characteristics of anthracite and bituminous coal.
- 7. Explain the effect of moisture content and ash content on the gasification process of biomass.
- 8. Explain, in detail, the working of an aerogenerator.
- 9. Enlist some energy conservation measures in transport.