

**CERTIFICATE IN ENERGY
TECHNOLOGY AND MANAGEMENT
(CETM)**

Term-End Examination

June, 2025

**OHEY-001 : ENERGY RESOURCES AND
CONVERSION PROCESSES**

Time : 3 Hours

Maximum Marks : 70

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

1. Enumerate various forms of renewable energy and describe any *two* of them in detail. 10
2. Define the following : 5×2=10
 - (a) Organic loading rate
 - (b) Power factor
 - (c) High grade energy
 - (d) pH
 - (e) Tidal energy

3. How is coal classified ? Discuss in detail the characteristics of semi-bituminous coal and anthracite. 10
4. Describe, in detail, the *three* types of thermal solar collectors. 10
5. Explain the environmental impacts of nuclear energy and photovoltaic solar energy. 10
6. (a) What are the materials that can be fed into biogas digesters ? 5
 (b) Explain briefly the process occurring in the digester and the material coming out of it, along with biogas. 5
7. Explain, in detail, the scope of wind solar hybrid system. 10
8. What are biofuels ? Describe 1st and 2nd generation biofuels. 10
9. Write short notes on the follownig : 5+5
 (a) Geothermal energy
 (b) Natural gas

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