

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

Term-End Examination

June, 2026

**OEY-003 : ENERGY MANAGEMENT : AUDIT
AND CONSERVATION**

Time : 3 Hours

Maximum Marks : 70

Note : (i) Attempt any **five** questions.

(ii) All questions carry equal marks.

1. (a) Discuss the principles of energy conservation in detail. 7
- (b) What are energy audit instruments ? Describe any *two* instruments for measuring electrical parameters. 7
2. (a) Explain in brief the energy conservation opportunities in pumping systems. 7

- (b) Discuss in detail about various types of 'Chulhas'. How could they help in energy conservation ? 7
3. Attempt any *four* of the following : $4 \times 3.5 = 14$
- (a) Define Energy and Power.
- (b) Explain the difference between active power and reactive power.
- (c) Write application of thermometer and thermocouple with suitable example.
- (d) What are short term and long term energy conservation measures ?
- (e) Distinguish between preliminary and detailed energy audit.
4. Discuss the various energy conservation measures required in a Vanaspati industry. 14
5. (a) What is waste heat recovery ? Describe its significance in energy conservation. 7
- (b) Enlist various good housekeeping measures to save electricity of your home. 7

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6. (a) One of your friends needs ₹ 5,000 now and promised to pay you back ₹ 5,700 in a year. Is that a fruitful investment if you can invest it at 10% elsewhere ? 7
- (b) What is net present value ? Explain its significance in LCA. 7
7. Write short notes on any *four* of the following : $4 \times 3.5 = 14$
- (a) Combustion analyzer
- (b) Sankey Diagram
- (c) Evaporative cooling
- (d) Inflation rate
- (e) Optimal mix of renewable energy
- (f) Rating of motors

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