

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

Term-End Examination

June, 2024

**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) What is the concept and purpose of Energy Audit ? List the information to be collected during detailed energy audit.

- (b) Classify energy conservation measures. How does tuning of boiler help in energy conservation ? 7+7

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2. (a) Identify the energy conservation measures in transport sector.
- (b) Explain any *two* devices based on solar PV technology. 7+7
3. (a) Describe various temperature measuring instruments.
- (b) Distinguish between the following :
 - (i) Commercial and Non-commercial energy sources.
 - (ii) Short-term and long-term energy conservation measures. 6+8
4. (a) What is life cycle cost ? How is it calculated by considering present worth and future worth ?
- (b) Describe in brief wind energy system with the help of a neat diagram. 7+7
5. (a) Illustrate significance of Sankey diagram to identify the area for energy conservation in thermal system.
- (b) Differentiate the star labeled electrical equipment from non-labeled electrical equipment based on running charges, initial investment and life span. 7+7

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6. (a) Discuss how any traditional building is converted into green building.
- (b) Discuss the areas where energy could be conserved in rural industries. 7+7
7. Write short notes on any *two* of the following : 7+7
- (a) Evaporative Cooling
- (b) Energy conservation measures in Vanaspati Industry.
- (c) Combustion analyser
- (d) Optimal mix of renewable energy technologies.