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OEY-003

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

Term-End Examination

June, 2021

**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.*

(iii) *Assume suitable data, if missing.*

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1. (a) Explain the principles of energy conservation. 7
- (b) Discuss the importance of short-term and long-term energy audit with suitable example. 7

2. (a) Explain the features of energy audit instrument. Enlist the instruments used to measure electrical parameters. 7
- (b) Describe any *one* pressure or temperature measuring instrument with sketch. 7
3. (a) Identify the various areas where energy could be conserved in printing press. 7
- (b) Discuss the principal components of energy balance in boiler. 7
4. (a) Discuss the methodology of rural energy planning. 7
- (b) Explain the limitations of the survey data. 7
5. (a) An amount of ₹ 5,000 is invested in an energy conservation measure. If the same amount is invested in another option where interest rate is 10%, what will be amount available at the end of one year ? 7
- (b) Explain the life cycle cost of optional mix renewable energy system. 7

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6. Describe any *four* energy efficient devices used to conserve energy. 14

7. Write short notes on any *two* of the following :

$7 \times 7 = 14$

(a) Evaporative cooling

(b) Energy conservation measures in Vanaspati industry

(c) Life cycle cost analysis

(d) Long-term energy conservation measures