

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

**Term-End Examination**

00453

**December, 2018**

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

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Attempt all *ten* questions. All questions carry equal marks. Use of calculator is permitted.

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1. Discuss the importance of energy audit in our day-to-day life. Justify your answer with suitable examples. 7
2. Name the various pressure, flow and speed measuring instruments and explain any one of them in brief. 7
3. An engine pumps up 1000 kg of water through a height of 10 m in 10 seconds. If the efficiency of the engine is 80%, calculate the power of the engine in kilowatts. Take  $g = 10 \text{ m/s}^2$ . 7

4. Discuss the energy conservation measures in boilers. 7
  5. Explain in brief the energy audit of a chemical industry. 7
  6. Elaborate the basic concepts of integrated rural energy planning. 7
  7. Discuss the basic principles of developing energy balance. 7
  8. Justify the statement "Animal power is a renewable energy source." 7
  9. Discuss the optimal mix of renewable energy technologies. 7
  10. Write short notes on the following :  $2 \times 3 \frac{1}{2} = 7$ 
    - (a) Energy Management
    - (b) Evaporative Cooling
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