

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

**Term-End Examination**

00082

**December, 2016**

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

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. Define the following : *5×2=10*
  - (a) Energy Carrier
  - (b) Potential Energy
  - (c) Geothermal Energy
  - (d) Calorific Value
  - (e) Biochemical Oxygen Demand
  
2. Give a detailed description of classification of biomass resources. *10*

3. Name and discuss in detail any two process parameters that affect biogas production. 10
  4. Discuss wind solar hybrid systems mentioning their advantages and economic viability. 10
  5. Explain the principle of tidal energy along with its advantages and disadvantages. 10
  6. Describe briefly fuel cell, its components and advantages. 10
  7. Discuss some applications and uses of electrical and thermal energy tapped from solar energy. 10
  8. What are 'biofuels' ? Discuss first and second generation biofuels. 10
  9. Write short notes on the following : 5+5=10
    - (a) Nuclear Energy
    - (b) Hydraulic Retention Time
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