

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

00548 **Term-End Examination**

June, 2016

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

Time : 3 hours

Maximum Marks : 70

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

1. Briefly explain the following : 5×2=10
- (a) Energy
 - (b) Solar Collector
 - (c) Organic Loading Rate
 - (d) Power Factor
 - (e) Low Grade Energy
2. Name and describe briefly the different forms of renewable energy. 10

3. Explain the major types of thermal solar collectors. 10
 4. Explain the environmental impacts of nuclear energy and photovoltaic solar energy. 10
 5. Explain the steps involved in the process of bio-methanation with the help of a flowchart. 10
 6. Discuss a water pumping windmill along with its advantages and limitations. 10
 7. (a) What are the materials that can be fed to bio-gas digesters ? 5
(b) Explain briefly the process occurring in the digester and the material coming out of it, along with bio-gas. 5
 8. Describe in brief fossil fuels. What are the advantages and disadvantages of fossil fuels ? 10
 9. How does a wind machine work ? Also, explain the different types of wind machines. 10
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