

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

Term-End Examination

00513

June, 2018

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

Time : 3 hours

Maximum Marks : 70

*Note : Answer any **seven** questions. All questions carry equal marks. Use of calculator is permitted.*

1. Describe in detail any two conventional energy sources. 10
2. Discuss in detail the various applications of hydrogen as a fuel. 10
3. Explain the advantages and disadvantages of liquid fuels. 10
4. Describe the process of photoelectric energy conversion with a neat diagram. 10
5. Discuss the importance of biogas in rural areas. 10

6. Calculate the theoretical amount of air required for the combustion of (a) propane (C_3H_8) (b) butane (C_4H_{10}) having 0.04 % oxygen. 10
 7. Explain the principle and application of geothermal energy. 10
 8. Explain the wind energy utilization for water pumping and off-grid power generation. 10
 9. Describe in detail the significance of nuclear energy in the present scenario and also give its environmental impact. 10
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