

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

Term-End Examination

00593

December, 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 scientific calculator is permitted.

1. Enlist various forms of renewable energy and describe any two of them in detail. 10
2. Discuss in detail, active and passive solar energy applications. 10
3. What are the most important properties that affect the pyrolysis/gasification of biomass ? Explain the effects of any two of them. 10

4. Discuss the effect of organic loading rate and pH value of feed on biogas production. 10
 5. Explain in detail, the scope of wind solar hybrid system. 10
 6. Enumerate the advantages and disadvantages of tidal energy. 10
 7. What are biofuels ? Describe 1st and 2nd generation biofuels. 10
 8. Elaborate the steps involved in biomethanation process with a neat sketch. 10
 9. Discuss in detail, the benefits of hydrogen as a fuel. 10
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