



Reg. No. : .....

Name : .....

**Sixth Semester B.Tech. Degree Examination, March 2015  
(2008 Scheme)**

**EI. – II : 08.606.2 : NEW ENERGY SYSTEMS (MPU)**

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Answer **all** questions from Part – A.  
2) Answer **one full** question from **each** Module in Part – B.

**PART – A**

1. How does geothermal energy differ from hydrothermal energy ?
2. Explain the principle of tidal power generation.
3. Explain the process of anaerobic digestion.
4. Explain the three basic effects that control thermoelectric phenomenon.
5. What are the advantages of tidal power ?
6. Explain seebeck and peltier effects.
7. Explain methods of energy conversion from waves.
8. What are the advantages and disadvantages of fuel cells ?
9. How are plasma confined ?
10. Explain any concentrating type of solar collector. **(10×4=40 Marks)**



**PART – B**

**Module – I**

11. a) Give an account of different methods of direct energy conversion and explain thermoionic conversion. **10**  
b) Explain what is meant by polarization in fuel cells. How it can be reduced ? **10**
12. Explain with the help of neat sketch the working of closed cycle MHD generator. **20**

**Module – II**

13. a) Explain in detail the principle of nuclear fusion. 10  
b) Explain the working of a double basin tidal energy conversion system. 10
14. Explain the methods of solar energy storage. 20

**Module – III**

15. a) Explain any one type of Biogas plant. 10  
b) Explain thermo-chemical conversion of biomass. 10
16. a) Discuss the socio-economic relevance of bio gas generation. 10  
b) How is  $H_2$  stored and transported ? 10

