

**Code No: A4906**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.TECH I - SEMESTER EXAMINATIONS, APRIL/MAY-2012**

**ENERGY CONVERSION SYSTEMS  
(ELECTRICAL POWER ENGINEERING)**

**Time: 3hours**

**Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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- 1.a) Explain solar cell configurations.  
b) Give applications of super conducting materials in electrical equipment systems.
- 2.a) Give Principles of MHD power generation.  
b) Explain MHD technology.
3. Discuss types of Wind turbines in detail.
- 4.a) Give Properties of Waves turbines and Power content.  
b) Explain Vertex motion of waves.
- 5.a) Explain Principles of EMF generation.  
b) Discuss Global energy position and environmental effects.
- 6.a) What are the types of fuel cells and explain any one of them in detail.  
b) Explain Environmental effects of energy conversion systems.
7. Discuss types of ocean thermal energy conversion systems in detail.
8. Write short notes on
  - a) Batteries
  - b) Global energy position
  - c) Photo current

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