

**Code No: C6403, C4909****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.Tech I - Semester Examinations, April/May-2012****ENERGY CONVERSION SYSTEM****(COMMON TO Power Engineering and Energy 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 spectral distribution of energy in solar radiation.  
b) Explain how voltage is developed by solar cell in detail.
- 2.a) Explain Wind energy conversion.  
b) Explain operating characteristics of wind turbines.
3. Explain in detail Tides and Tidal power stations.
- 4.a) Discuss Biomass Conversion in detail.  
b) Explain about Geothermal energy in detail.
- 5.a) Explain Principles of EMF generation.  
b) Discuss Fuel cells in detail.
- 6.a) Discuss in detail about energy storage.  
b) Explain Global energy position.
- 7.a) What are the types of Fuel cells, discuss any one of them.  
b) Explain about combined cycle co-generation.
- 8.a) Explain pollution free energy systems in detail.  
b) Give description of batteries in detail.

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