

Code No: C4209, C4309, C5409

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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

ENERGY CONSERVATION SYSTEMS

(COMMON TO POWER AND INDUSTRIAL DRIVES, POWER ELECTRONICS, POWER ELECTRONICS AND ELECTRIC DRIVES)

Time: 3hours

Max. Marks: 60

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

- 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.
