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EE-8401

B.E. VIII Semester

Examination, June 2017

Renewable and Non Conventional Energy Systems
(Elective - IV)

Time : Three Hours

Maximum Marks : 70

Note: Attempt any five questions. All questions carry equal marks.

1. a) What is meant by renewable energy sources? Explain in brief these energy sources with special reference to Indian Context.
b) What is Energy Management? Write the importance of energy planning in Energy Management.
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2. a) Describe with a neat sketch the working of a Wind Energy Conversion System (WECS) with main components.
b) Explain Grid independent wind-battery system.
3. a) Write down the approach for thermal electric conversion system from solar energy.
b) Explain various factors contributing to losses and hence, reduction of efficiency of a solar cell.
4. a) How Biomass conversion takes place? What is the origin of biomass energy. www.rgpvonline.com
b) What are the advantages and disadvantages of use of biogas.

5. a) Explain the principle of OTEC.
b) Write the merits, demerits and application of Geothermal energy.

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6. a) Write the measures for electricity saving in pumps.
b) What is Energy Audit? How it is performed?
7. a) What are the various measuring devices used for energy measurements.
b) Write a note on energy efficient motors.
8. Write short notes on any two:
 - a) Synchronous versus Induction Generator for stand alone system
 - b) PV operated lighting and water pump
 - c) Magneto hydro generated energy
 - d) Renewable and Non-renewable sources

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