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B.Tech. 7th Semester (EE)
Examination, December-2015

**RENEWABLE ENERGY RESOURCES AND
TECHNOLOGY**

Paper-HUM-459-F

Time allowed : 3 hours] [Maximum marks : 100

- Note :** (i) **Question No. 1 (Section-A) is compulsory.**
(ii) **Attempt four more questions from remaining four Sections (B, C, D and E) by selecting at least one question from each section.**

Section-A

1. (a) Write down the applications of non conventional and renewable energy sources. 5
- (b) Explain the advantages of Interconnected systems. 5
- (c) Explain the prospects of Geothermal energy in India. 5
- (d) What do you mean by Thermionic Power Generation. 5

Section-B

2. What do you mean by renewable energy sources ? Explain the energy sources and their availability in India. 20
3. What do you mean by Green House Gas effect ? Explain the Global Environmental awareness in detail. 20

Section-C

4. Explain the constructional features of Solar power plant in detail. What are the applications of Solar power plant? 20
5. Explain the basic principle of wind energy conversion. Explain the scheme for Generator Control and Load Control. 20

Section-D

6. Explain the methods of selection of site for Bio-gas plants. Explain Biogas conversion technology in detail. 20
7. Explain Ocean Energy and tidal power in detail. What are the prospects of these energy in India. 20

Section-E

8. What do you mean by MHD ? Explain the construction and working principle of MHD system. 20
9. Explain :
- (a) Risk
 - (b) Rules
 - (c) Regulation in visit to site of power plants. 20