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Roll No. ....

### **302(NGS)**

**B. E. (Third Semester) EXAMINATION, Dec., 2011**

**(Non-Grading System)**

**(Common for CS, EC, EE, EI, EX, IT, BT & BM Engg.)**

**ENERGY, ENVIRONMENT ETHICS AND SOCIETY**

**[302(NGS)]**

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks : 35*

**Note :** Attempt any *five* questions. All questions carry equal marks. Assume suitable data wherever required.

1. (a) Differentiate between renewable and non-renewable energy resources.  
(b) What are Conventional Energy Resources ? Discuss about solar energy and thermal energy.
2. (a) Explain the components, characteristics and biodiversity of Forest Ecosystem.  
(b) Describe the types, features, structure and function of the various components of an Ecosystem.
3. Explain the following :
  - (i) Carbon Cycle
  - (ii) Nitrogen Cycle

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4. (a) Define Pollution. What are the pollutants ? How will you control air pollution ?  
(b) Explain the term the Global Warming. What are the sources of Green House Gases in the atmosphere ?
5. (a) Explain the Urban problems related to water. How it can be tackled ?  
(b) Explain the causes, effects and control measures of Water Pollution.
6. (a) What are the causes of soil erosion and methods of prevention ?  
(b) What are the measures recommended for proper management of the solid waste ?
7. (a) Differentiate ethics, morals and values. Explain the types of ethics.  
(b) Explain the skills needed to handle problems about moral issues in engineering ethics.
8. Write short notes on any *four* of the following :
  - (i) Mechanism of Ozone Layer Depletion
  - (ii) Acid Rain and Effects
  - (iii) Define BOD and COD
  - (iv) Municipal Solid Waste
  - (v) Types of Radioactive Wastes
  - (vi) Solar and Wind Energy