

M.Tech-Energy Management Systems Sem II  
**MT-1014.2 - Elective-II : Environmental Science and Engineering**

P. Pages : 1

Time : Three Hours



**GUG/W/16/3958**

Max. Marks : 70

- Notes :
1. All questions carry equal marks.
  2. Answer **any five** questions.
  3. Assume suitable data wherever necessary.
  4. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Define environmental degradation. How can you reduce it? 7  
b) Which is the main cause and effects of acid rain on the biological damage? 7
2. a) What are the environmental issues with regard to land used by various generating stations? 7  
b) What are the guidelines for site selection of coal based thermal power plants by MOEF? 7
3. Write short notes on  
a) Clean coal technology 7  
b) Green biogas energy 7
4. a) Describe the importance of built up an Anaerobic treatment plant for the co-generation from industrial sludge. 7  
b) How can you meet with the requirements of 'Clean water act' from modern effluent treatment techniques. 7
5. a) Explain environmental Impact Assessment. How it can be carried out in hydropower station? 7  
b) Explain the method of air pollution control in nuclear power plant. 7
6. Discuss pre combustion & post combustion technologies employed for reducing pollution in coal fired thermal power plant. 14
7. a) What are the guide lines for coal based thermal power plant to use the beneficiated coal with environmental concerns. 7  
b) Discuss the emission standards as per EPA & CPCB notifications. 7
8. a) State various pollution control equipments used in power plant. Explain any one equipment.  
b) Write brief note on fly ash utilization.

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