

Total No. of Questions : 9] [Total No. of Printed Pages : 3

Roll No.

302(O)

B. E. (Third Semester) EXAMINATION, June, 2010

(Old Scheme)

**(Common for AU, CE, CM, CS, EC, EE, EI, EX, FT, IT,
ME, TX & BM Engg.)**

ENERGY, ECOLOGY, ENVIRONMENT AND SOCIETY

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

- Note :** (i) Attempt any *five* questions.
(ii) All questions carry equal marks.
(iii) Parts of the question should be attempted together.

1. (a) What is a solar pond ? What are the merits and limitations of solar pond ? 10
(b) Give advantages and limitations of the following : 10
(i) Wind energy
(ii) Geothermal energy
2. (a) Discuss the utility and waste management of hydro-power plants. 10
(b) Discuss the consequences of rapid overexploitation of fossil fuels and alternative sources of energy for mankind ? 10

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3. (a) Discuss the roles which CO_2 , CH_4 water vapour, chlorofluorocarbons and oxides of nitrogen play in global warming. 10
- (b) What is ozone hole ? Where it was first discovered ? Discuss the role of meteorological conditions in its formation. 10
4. (a) Define the term pollution. Then define air pollution. Name various sources of air pollution. 10
- (b) What are the secondary air pollutants ? Discuss their sources and relative contribution to air pollution. 10
5. (a) Discuss in brief high volume air sampler and draw its diagram. 10
- (b) Discuss in brief what is CNG and how its use will decrease pollution. 10
6. (a) What are acid rains ? Discuss their causes, consequences and control measures. 10
- (b) Differentiate between smog and photochemical smog. What are the meteorological condition favouring the formation of smog and photochemical smog ? 10
7. (a) Define noise and noise pollution. How is it measured ? 10
- (b) Discuss the ill effects associated with high level of noise on humans. 10
8. (a) Write a short note on decibel scale. Give Indian standards for permissible noise level in various areas. 10
- (b) What are the measures that you can suggest for control and prevention of noise ? 10

9. (a) Describe the activated sludge process. State the advantages and disadvantages of this process. 10
- (b) What are the typical constituents of textile industry waste water ? What are their harmful effects ? What are the typical treatment methods adopted ? 10