

Total No. of Questions : 5] [Total No. of Printed Pages : 3

Roll No.

BE-202(GS)

B. E. (First/Second Semester)

EXAMINATION, June, 2012

(Grading System)

(Common for all Branches)

ENERGY, ENVIRONMENT, ECOLOGY AND SOCIETY

[BE – 202(GS)]

Time : Three Hours

Maximum Marks : 70

Minimum Pass Marks : 22 (D Grade)

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit – I

1. (a) What are the conventional sources of energy for mankind ?
- (b) Briefly explain the nuclear fission and nuclear fusion. State the difference between them.

Or

- (a) What is Solar Pond ? What is the principle on which it works ? State the merits and limitations of solar pond.
- (b) Write short notes on the following :
 - (i) Indian energy scenario
 - (ii) Fossil fuel resources

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Unit – II

2. (a) What are Biogeochemical cycles ? Describe the nitrogen cycle with the help of a neat sketch.
- (b) Write short notes on the following :
- (i) Endemic species of India
 - (ii) Ethical value of biodiversity

Or

- (a) Name and describe the four major layers of atmosphere. What are the important chemical species in each layer ?
- (b) Write short notes on the following :
- (i) Biosphere
 - (ii) Biodiversity treaty

Unit – III

3. (a) Define Air Pollution. What are the sources of air pollutants ? How will you classify air pollutants ? 10
- (b) What are the various sources of noise ? Classify and discuss the noise under different categories.

Or

- (a) What is Acid Rain ? What are the causes and effects of acid rain ? How can the problem be overcome ?
- (b) Write short notes on the following :
- (i) Decible (dB) scale
 - (ii) Impact of noise pollution on biotic components

Unit – IV

4. (a) Define water pollution. What are the point and diffused sources of water pollution ?

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(b) Differentiate between the following :

- (i) COD and BOD
- (ii) Septic and Imhoff tanks

Or

- (a) What is Soil ? Give the typical composition of soil and explain in brief the formation of soil.
- (b) Discuss the process of aerobic and anaerobic decomposition of domestic waste water.

Unit – V

5. (a) What are the general principles of ethics ? State and discuss.
- (b) State and discuss the content of an EIS for a project.

Or

- (a) Explain the utility of ethics for the betterment of society and protection of environment.
- (b) Write short notes on the following :
 - (i) ACM professional code
 - (ii) Rights and duties of ethics