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Question Paper Code : 27279

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Third Semester

Civil Engineering

GE 6351 — ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to Third Semester Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Instrumentation and Control Engineering, Environmental Engineering, Robotics and Automation Engineering, Information Technology, Polymer Technology, Textile Chemistry, Textile Technology, Fashion Technology, Biotechnology, Plastic Technology, Pharmaceutical Technology and Petrochemical Technology)

(Also common to Fourth Semester Geoinformatics Engineering, Mechanical Engineering and Chemical Engineering)

(Also common to Electronics and Communication Engineering, Mechatronics Engineering, Geoinformatics Engineering, Automobile Engineering, Aeronautical Engineering, Production Engineering, Medical Electronics Engineering, Petrochemical Engineering)

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define biodiversity.
2. What is food chain?
3. Define noise pollution.
4. What is the role of individual in pollution prevention?
5. What are renewable and non-renewable energy resources?
6. What do you mean by land degradation?

7. List out the advantages of rain water harvesting.
8. Define consumerism.
9. State the role of information technology in Environment.
10. Define population explosion.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the types, characteristic features, structure and functions of
- (1) Forest ecosystem
 - (2) Aquatic ecosystem. (8)
- (ii) Explain the following :
- (1) Ecological Succession
 - (2) Ecological Pyramids. (8)

Or

- (b) (i) What are the major causes of man-wild conflicts? Discuss the remedial steps that can curb the conflict. (8)
- (ii) Explain briefly the energy flow through ecosystem. (8)
12. (a) (i) Explain the causes, effects and control measure of water pollution. (8)
- (ii) Explain the various methods of controlling air pollution. (8)

Or

- (b) (i) Write a note on :
- (1) Nuclear hazards
 - (2) Thermal pollution. (8)
- (ii) What is marine pollution? Explain the ill effects of marine pollution with the help of a case study. (8)
13. (a) (i) Discuss the impact of mining on environment and human health. (8)
- (ii) What are the effects of deforestation? Is deforestation justified? Comment. (8)

Or

- (b) (i) Explain the merits and demerits of dam. (8)
- (ii) Write informative notes on modern agriculture. (8)

14. (a) (i) Name the laws that have been framed for environmental protection and mention the objectives for each act. (8)
- (ii) Discuss various measures for wasteland reclamation. (8)

Or

- (b) (i) Write a note on :
- (1) Earthquake (8)
- (2) Cyclone. (8)
- (ii) Explain in detail, how biomedical wastes are managed and handled. (8)
15. (a) (i) What is AIDS? What are the sources and mode of transmission of HIV infection? (8)
- (ii) Write a note on the following :
- (1) Women and child welfare in India
- (2) Human rights. (8)

Or

- (b) (i) What are the objectives and elements of value education? How can the same be achieved? (8)
- (ii) Population explosion affects the environment seriously. Discuss. (8)
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