

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Third Semester

Civil Engineering

GE 2021/GE 32/080100016/080380015 – ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to Sixth Semester – Petroleum Engineering, Fifth Semester – Mechanical Engineering, Aeronautical Engineering, Automobile Engineering, Electronics and Communication Engineering, Production Engineering, Mechanical and Automation Engineering and Petrochemical Engineering, Fourth Semester – Biomedical Engineering and Geoinformatics Engineering, Third Semester – Civil Engineering, Computer Science and Engineering, Information Technology, Textile Chemistry, Pharmaceutical Technology and Petrochemical Engineering)

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

(Regulation 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are food chains?
2. Define biodiversity.
3. What do you mean by noise pollution?
4. What is acid rain?
5. What are renewable and non-renewable energy resources?
6. What is desertification?
7. What is consumerism?
8. What do you mean by disaster management?
9. Define population explosion.
10. List out the advantages of family welfare programmes.

11. (a) (i) Describe the types, characteristic features, structure and functions of aquatic ecosystems. (8)
- (ii) What are the major causes of man-wild conflicts? Discuss the remedial steps that can curb the conflict. (8)

Or

- (b) (i) Explain the following :
 (1) Ecological succession
 (2) Ecological pyramid. (8)
- (ii) Explain the major factors that are responsible for the loss of biodiversity. (8)

12. (a) (i) Explain the causes, effects and control measure of air pollution. (8)
- (ii) Explain the control and prevention measures of municipal solid wastes. (8)

Or

- (b) (i) Write briefly about the hazards caused by the nuclear wastes. (8)
- (ii) Explain in detail the role of an individual in pollution prevention. (8)

13. (a) (i) What are the effects of deforestation? Is deforestation justified? Comment. (8)
- (ii) Discuss the impact of mining on environment and human health. (8)

Or

- (b) (i) Write note on :
 (1) Food resources
 (2) Mineral resources. (8)
- (ii) With the help of a neat diagram explain the production of biogas. (8)

14. (a) (i) Explain the effects of nuclear accidents with two case studies. (8)
- (ii) Discuss various measures for wasteland reclamation. (8)

Or

- (b) (i) What is rain water harvesting? What are the purposes served by it? (8)
- (ii) Name the laws that have been framed for environmental protection and mention the objectives for each act. (8)

15. (a) (i) What is AIDS? What are the sources and mode of transmission of HIV infection? (8)
- (ii) What are the objectives and elements of value education? How can the same be achieved? (8)

Or

- (b) (i) Write informative notes on :
 (1) Human rights
 (2) Women and child welfare. (8)
- (ii) Describe the role of information technology in environment and human health with case studies. (8)