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**Question Paper Code : 80177**

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Second/Third/Fourth Semester

Civil Engineering

GE 8291 — ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to Agriculture Engineering /Materials Science and Engineering/  
Medical Electronics/Chemical Engineering/Food Technology/Information  
Technology/Aeronautical Engineering/Automobile Engineering/Computer Science  
and Engineering/Computer and Communication Engineering/Electrical and  
Electronics Engineering/Electronics and Communication Engineering/  
Electronics and Instrumentation Engineering/Electronics and Telecommunication  
Engineering/Environmental Engineering/Geoinformatics/  
Industrial Engineering/Industrial Engineering and Management/ Instrumentation  
and Control Engineering/Manufacturing Engineering/Marine Engineering/  
Mechanical Engineering/Mechanical Engineering (Sandwich)/Mechanical and  
Automation Engineering/Mechatronics Engineering/Production Engineering/  
Robotics and Automation Engineering/Bio Technology/  
Chemical and Electrochemical Engineering/Pharmaceutical Technology/Plastic  
Technology/Polymer Technology)

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is an ecosystem?
2. What is biodiversity?
3. What is air pollution?
4. What is thermal pollution?
5. Outline the fertiliser — pesticide problems.
6. Distinguish between renewable and non – renewable energy sources.
7. What is ozone layer depletion?

8. What is holocaust?
9. What is value education?
10. Outline the effects of population explosion.

PART B — (5 × 13 = 65 marks)

11. (a) Give an account on the structure and function of the grassland ecosystem.

Or

- (b) Explain the causes and effects of soil pollution.

12. (a) What are the causes and effects of water pollution?

Or

- (b) Give an account on the environmental effects of extracting and using mineral resources.

13. (a) Enumerate on the use and over utilization of surface and ground water resources.

Or

- (b) Write a detailed account on water conservation, rain water harvesting and water shed management.

14. (a) Explain the present studies on climate change and global warming.

Or

- (b) Enumerate on the role of information technology in environment and human health.

15. (a) Give an account on the family welfare, women and child welfare programmes.

Or

- (b) Explain land degradation, soil erosion and desertification.

PART C — (1 × 15 = 15 marks)

16. (a) Give an account on the causes and effects of marine pollution. Add a note on the control measures.

Or

- (b) Explain the characteristic features, types, structure and function of the aquatic ecosystems.