

**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.