

Reg. No. :

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**Question Paper Code : 20461**

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2012.

Eighth Semester

Marine Engineering

GE 2021/GE 32/HS 1201/10177 GE 001/080100016/080380015 —  
ENVIRONMENTAL SCIENCE AND ENGINEERING

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

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Ecosystem.
2. Write about ecological pyramids.
3. Explain the term photo-chemical smog.
4. Write any four source of water pollution.
5. Define BOD<sub>5</sub>.
6. What is population pyramid? Explain.
7. Name any four Natural Resources.
8. Why value education is important?
9. How nuclear waste disposed safely?
10. List various Clean Air Act Amendments.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the structure and functions of all Ecosystems.

Or

- (b) (i) Explain the conservation of biodiversity in Global level. (8)  
(ii) What is Food chain? How it is important to nation? (8)
12. (a) (i) Write briefly the impact of Air pollution on humans. (10)  
(ii) What is Thermal pollution? Explain. (6)

Or

- (b) Explain the role of an individual in prevention of pollution and Disaster Management with suitable recent case study.
13. (a) (i) What is Deforestation? Write the effects of deforestation. (8)  
(ii) Write briefly the Environmental issues caused by mineral resources. (8)

Or

- (b) Explain the role of alternate energy sources in pollution control with case studies.
14. (a) Define water Reuse and conservation and explain the methods adopted to conserve water in industries.

Or

- (b) Explain various prevention and control of pollution Act used in Air, water and nuclear waste disposal.
15. (a) Explain the role of information technology in environmental field with suitable case study.

Or

- (b) Write short notes on (4 × 4 = 16)  
(i) Effect of modern agriculture.  
(ii) Population growth and explosion.  
(iii) Noise pollution.  
(iv) Conservation of biodiversity.