

Reg. No. :

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**Question Paper Code : 10374**

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

Third Semester

Electrical and Electronics Engineering

GE 2211/185302/GE 33/HS 1201/10177 GE 001/080300008 — ENVIRONMENTAL  
SCIENCE AND ENGINEERING

(Common to Chemical Engineering, Textile Technology, Instrumentation and  
Control Engineering, Biotechnology, Plastic Technology, Electronics and  
Instrumentation Engineering, Polymer Technology and Textile Technology  
(Fashion Technology))

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the biotic and abiotic components of an ecosystems?
2. What are biogeochemical cycles?
3. What do you understand by the term thermal pollution?
4. Define sustainable development.
5. What are major sources of solid waste cause?
6. What is over grazing?
7. What are solar cells?
8. What are the objects of value education?
9. What is meant by population explosion?
10. What are the four application of GIS?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss the any one of the models of energy flow in an ecosystem. (8)  
(ii) What are food chains and food webs? (4)  
(iii) Give examples and discuss their significance. (4)

Or

- (b) (i) What are the major threats to biodiversity? (8)  
(ii) What is Red Data Book? What do you mean by extinct endangered, vulnerable and rare species? Name some endangered species of plants and animals in our country? (8)
12. (a) (i) Discuss various sources of marine pollution. (6)  
(ii) How can you prevent pollution of our oceans? (10)

Or

- (b) (i) What adverse effects can solid waste cause? (8)  
(ii) How can the solid waste be managed? (8)
13. (a) (i) Explain major uses of forest. (8)  
(ii) How would you justify that ecological uses of forests surpass commercial uses? (8)

Or

- (b) Briefly discuss droughts and floods with respect to their occurrences and impacts. (16)
14. (a) Why do we refer to Environmental protection Act 1986 as an umbrella act? Discuss the major environmental protection rules, 1986. (16)

Or

- (b) (i) What do we mean by environment refugees? Explain. (4)  
(ii) What are the major causes for displacement of native tribal people? Discuss in the light of some case studies. (12)

15. (a) What is universal declaration of Human Rights? What is its importance in achieving the goals of equity, justice and sustainability? (16)

Or

- (b) What is the role of NMIS, ENVIS and GIS in dissemination of Environmental information and Environment management? (16)
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