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Question Paper Code : 21647

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Third Semester

Electrical and Electronics Engineering

GE 2211/GE 33/080300008/080130067/10177 GE 001/10177 GE 001 A —
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))

(Also common to 10177 GE 001 for Biotechnology, Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Instrumentation and Control Engineering and 10177 GE 001 A for Chemical Engineering)

(Regulations 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How does overgrazing contribute to environmental degradation?
2. In what tectonic environments do mineral deposits form?
3. Distinguish between biotic and abiotic components of an ecosystem.
4. What is the effect of habitat loss on biodiversity?
5. Mention any two anthropogenic sources responsible of soil pollution.
6. What are the impacts of thermal pollutant on aquatic ecosystem?
7. What are the major impacts of acid rain?
8. What do you mean by rain water harvesting?
9. List out the objectives of value education.
10. What is the relation between population growth and the natural resources?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss with the help of a case study, how big dams have affected forests and the tribal population.

Or

- (b) (i) What actions are required for the conservation and sustainable use of energy resources? (8)
(ii) Explain the possible contribution of individuals towards natural resources conservation (8)

12. (a) Explain the structure and function of an ecosystem. Discuss the models of energy flow in an ecosystem.

Or

- (b) What are the main objectives of conservation of biodiversity? Discuss the various strategies for conservation of biodiversity.

13. (a) Enumerate different biogeographic zones of India and explain the characteristics of each zone.

Or

- (b) Briefly describe the sources, effects and control of noise pollution.

14. (a) (i) Discuss various effects and control measures of marine pollution. (8)
(ii) How can you, as an individual, prevent environmental pollution? (8)

Or

- (b) (i) List the components which are to be given attention in any watershed management. (6)
(ii) What do you mean by sustainable development? What are the major measures to attain sustainability? (10)

15. (a) (i) Discuss the salient features of Water (Prevention and Control of Pollution) Act, 1974. (8)
(ii) What is meant by population stabilization? Discuss the family planning programme in Indian context. (8)

Or

- (b) Discuss the role of information technology in environment and human health with the help of a case study.