Reg. No. : 9 6 2 9 1 1 2 0 5 0 1 9

Question Paper Code : 11424

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Third Semester

Civil Engineering

GE 2021/GE 32/GE 33/10177 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 & Engineering, Information Technology, Textile Chemistry, Pharmaceutical Technology, Petrochemical Engineering Fourth Semester – Biomedical Engineering and Eighth Semester – Marine Engineering)

(Regulation 2008)

(Common to PTGE 2021 – Environmental Science and Engineering for B.E. (Part-Time) – Second Semester Electronics and Instrumentation Engineering, Textile Technology and Third Semester – Civil Engineering – Regulation 2009)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — ($10 \times 2 = 20$ marks)

1. Define decomposer and give their significance.
2. Differentiate between insitu and exsitu conservation of biodiversity.
3. Define BOD_5.
4. What is photochemical smog?
5. Define eutrophication.
6. Differentiate between renewable and non renewable resources.
7. What is rain water harvesting?
8. Define sustainable development.
9. Define population explosion.
10. What is value education? Give its significance.

PART B — (5 × 16 = 80 marks)

11. (a) Describe the structure and function of the forest and grassland ecosystem.

Or

(b) (i) Give the various hot spots of biodiversity.

(ii) Explain the various threats to biodiversity along with the means to conserve them.

12. (a) Explain the causes, effects and control measures of water pollution.

Or

(b) (i) Explain about any one nuclear holocaust.

(ii) Give in detail the various strategies to control the municipal solid waste generation.

13. (a) Describe the problems associated with the over exploitation of mineral resources and ground water.

Or

(b) (i) What is deforestation and give its ill effects.

(ii) Illustrate the various environmental ill effects and benefits associated with dams with reference to a case study.

14. (a) Write short notes on :

(i) Water (Prevention and Control of Pollution) Act. (4)

(ii) Forest Conservation act. (4)

(iii) Acid rain. (4)

(iv) Water shed management. (4)

Or

(b) Define global warming and illustrate the various ill-effects on the environment and other life forms on earth.

15. (a) Describe the role of information technology in environment and human health.

Or

(b) Write short notes on :

(i) Effect of Modern agriculture. (4)

(ii) HIV/AIDS. (4)

(iii) Noise Pollution. (4)

(iv) Role of an individual in prevention of pollution. (4)

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