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Question Paper Code: 40671

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Second/Third/Fourth/Fifth/Sixth/Seventh Semester

Civil Engineering

GE 8291 — ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to : Aeronautical Engineering/Aerospace Engineering/ Agriculture Engineering/ Automobile Engineering/Biomedical 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 Engineering/Industrial Engineering/Industrial Engineering and Management/ Instrumentation and Control Engineering/Manufacturing Engineering/Marine Engineering/ Material Science and Engineering/Mechanical Engineering/ Mechanical Engineering (Sandwich)/Mechanical and Automation Engineering/ Mechatronics Engineering/Medical Electronics/Petrochemical Engineering/ Production Engineering/Robotics and Automation/Artificial Intelligence and Data Science/Bio Technology/Chemical Engineering/Chemical and Electrochemical Engineering/Computer Science and Business System/Fashion Technology/ Food Technology/Handloom and Textile Technology/Information Technology/ Petrochemical Technology/ Petroleum Engineering/ Pharmaceutical Technology/ Plastic Technology/Polymer Technology/Textile Chemistry/Textile Technology)

(Regulations 2017)

Time: Three hours Maximum: 100 marks

Answer ALL questions.

PART A — $(10 \times 2 = 20 \text{ marks})$

- 1. Mention the types of Ecological Pyramid.
- 2. Mention any two uses of biodiversity.
- Define BOD.
- 4. Mention the Sources of municipal solid waste.
- 5. Compare Renewable and Non renewable Energy.

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- 6. List the Merits and Demerits of a Dam.
- 7. Define Sustainable Development.
- 8. Mention the different Green House gases.
- 9. List the effect of population explosion.
- 10. Mention any two child welfare programme in India.

PART B — $(5 \times 13 = 65 \text{ marks})$

11. (a) Describe the Characteristic Features, Structure and Function of a Forest Ecosystem.

Or

- (b) Discuss India as a mega biodiversity Nation and strategies for conservation of Biodiversity.
- 12. (a) Explain the source, classification and control of Air pollution.

Or

- (b) Explain the role of an individual in prevention of pollution.
- 13. (a) Define Deforestation. Discuss the various causes and effects of deforestation. Mention the conservation methods to control deforestation.

Or

- (b) Discuss the role of individual in conservation of natural resources.
- 14. (a) Describe the Salient features of wild life protection act and forest act.

Or

- (b) Discuss the functions of state and central pollution control board in enforcement of environmental legislation.
- 15. (a) Discuss the origin of HIV, mode of transmission, symptoms and control.

Or

(b) Explain the role of Information technology in environment and human health.

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PART C — $(1 \times 15 = 15 \text{ marks})$

16. (a) Discuss with a case study on any one water conflicts in regional or national level and also provide a remedial solution.

Or

(b) Describe any one recent air pollution problem and suggest a suitable remedial measure.

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