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* X10560T*	Reg. No.:						

Question Paper Code : X10560

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020/ APRIL/MAY 2021

Second/Third/Fourth/Fifth and Sixth Semester

Civil Engineering

GE 8291 - ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to all branches)

(Regulations 2017)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions.

PART - A

 $(10\times2=20 \text{ Marks})$

- 1. Write the important functions of an ecosystem.
- 2. What are the causes of threats to biodiversity?
- 3. Specify the effects of air pollution.
- 4. Justify the role of an individual in the prevention of pollution.
- 5. State the benefits of dams.
- 6. Specify about the effects of practicing modern agriculture.
- 7. Mention about the advantages and disadvantages of nuclear energy.
- 8. State about the role of state pollution control board.
- 9. Write about the issues related to population explosion.
- 10. Specify the importance towards the consideration of women and child welfare.

PART - B

 $(5\times13=65 \text{ Marks})$

11. a) Explain the characteristic features, function and structure of aquatic ecosystem with respect to lakes, rivers and estuaries.

(OR)

b) Summarize about the practice of conservation of biodiversity based on in-situ and ex-situ aspects.

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12. a) Elaborate on the causes and impacts of noise pollution and thermal pollution.

(OR)

- b) Summarize on the importance of disaster management with respect to floods and cyclone based on the recent incidents happened in Kerala and Tamil Nadu.
- 13. a) Explain the process of generation and utilization of surfaces water and ground water.

(OR)

- b) Summarize on the importance of utilization of bio gas and bio fuel in the energy sectors.
- 14. a) Summarize on the sustainable practices required with respect to water conservation, rain water harvesting and watershed management.

(OR)

- b) Write about the water (prevention and control of pollution) act and Wildlife Protection Act.
- 15. a) Give an detailed account about the human rights and value education.

(OR)

b) Elaborate on the role of information technology towards the environment and human health.

PART - C (1×15=15 Marks)

16. a) Explain the values of biodiversity.

(OR)

b) Explain the effects and control measures of soil pollution.