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Question Paper Code : 60636

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Fifth Semester

Mechanical Engineering

GE 2021/GE 32/GEU 024/080100016/080380015 – ENVIRONMENTAL SCIENCE
AND ENGINEERING

(Common to Sixth Semester - Petroleum Engineering, Fifth Semester - Aeronautical Engineering, Automobile Engineering, Electronics and Communication Engineering, Production Engineering, Mechanical and Automation Engineering and Petrochemical Engineering, Fourth Semester - Biomedical Engineering and Geoinformatics Engineering, Third Semester - Civil Engineering, Computer Science and Engineering, Information Technology, Textile Chemistry, Pharmaceutical Technology and Petrochemical Engineering)

(Also Common to HS 1201 - Environmental Science and Engineering for Fifth Semester - Electronics and Communication Engineering, Fourth Semester - Biomedical Engineering and Third Semester - Computer Science and Engineering and Information Technology also common to 10177 GE 001 for Fifth Semester - Aeronautical Engineering, Automobile Engineering, Electronics and Communication Engineering, Mechanical Engineering and Textile Technology, Fourth Semester - Biomedical Engineering, Third Semester - Civil Engineering, Computer Science and Engineering, Information Technology/Material Science and Engineering for Fifth Semester)

(Regulations 2008/2010)

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

(Common to 10177 GE 001 - Environmental Science and Engineering for B.E. (Part - Time) Second Semester - Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering Regulations 2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How would environmental awareness help to protect our environment?
2. India is a mega diversity nation – Explain.
3. What is meant by soil pollution?
4. Mention the control measures of radiation pollution.
5. What are the effects of over utilization of pesticides?
6. What do you mean by desertification?
7. List out any two effects of acid rain.
8. What are the functions of state pollution control board?
9. If the annual growth of a nation is 4% calculate its doubling time.
10. What do you mean by population explosion?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Write a brief note on the value of biodiversity. (8)
(ii) Explain the terms extinct, endangered, vulnerable and rare species. Name any two endangered species of plants and animals of our country. (8)
Or
(b) Discuss the structure and functions of any two ecosystems. (16)
12. (a) (i) Describe the sources, effects and control measures of noise pollution. (8)
(ii) Enumerate the effects of earth quake and suggest the measures to mitigate their disaster. (8)
Or
(b) (i) How is air pollution controlled by pollution control strategies? (8)
(ii) What adverse can solid wastes cause? How can the solid waste be Managed? (8)

13. (a) (i) Write an explanatory note on any two renewable energy Resources. (8)

(ii) Explain the major impacts of mineral extraction. (8)

Or

(b) (i) How can you as an individual conserve different natural resources? (8)

(ii) What are the consequences and control measures of deforestation? (8)

14. (a) (i) Describe the various measures of wasteland reclamation. (8)

(ii) Give an account of the following (8)

(1) Forest conservation Act 1980

(2) Wild life protection Act 1972.

Or

(b) Explain the phenomena global warming and discuss its impacts. (16)

15. (a) (i) Briefly discuss on AIDS, mode of its spread and effects on environment. (8)

(ii) Explain the issues and measures of women and child welfare in India. (8)

Or

(b) (i) Express the need and importance of value education. (8)

(ii) Explain the role of Information and Technology on human health. (8)