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Question Paper Code : 51636

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 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/Materials 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. List the functions of grassland ecosystem.
2. Write any two biodiversity hot spots in India.
3. Write any two marine pollution conventions.
4. What is a landslide ?
5. What are the effects of over grazing ?
6. How the environment is affected due to mineral extraction ?
7. What is Environmental Protection Act ?
8. What are the causes of unsustainable development ?
9. Write any two child welfare schemes in Tamil Nadu.
10. What is population growth ?

PART – B (5 × 16 = 80 Marks)

11. (a) Write about structure and function of an ecosystem. Explain the structure and function of forest ecosystem.

OR

- (b) (i) Write an elaborate note on the need for public awareness about the environment.
- (ii) Write about biogeographic classification of India.

12. (a) What is nuclear pollution ? Explain the sources and effects of nuclear pollution.

OR

- (b) Explain about effects and management of solid waste.

13. (a) What is water logging ? How do you control water logging and salinity problems ?

OR

(b) Write the importance of forests. Explain the causes and effects of over exploitation of forest resources.

14. (a) Explain in detail about watershed management.

OR

(b) (i) What is environmental ethics ? Write about the issues and possible solutions. **(8)**

(ii) Explain the effects of global warming. **(8)**

15. (a) Explain the causes, effects and control of HIV/AIDS.

OR

(b) Write about the reasons for population explosion in India. What are the measures to be taken to check population explosion ?