

A/6/16 FN

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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 ?