

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]  
(2064)

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**B. Tech 6th Semester Examination**  
**Environment Science and Management**  
**HU-6022**

**Time : 3 Hours**

**Max. Marks : 100**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt one question from each of the Sections A, B, C and D. All sub-questions in Section E are compulsory.

**SECTION - A**

1. What are the environmental problem caused by rapid urbanization? (20)
2. How do human interactions affect air, water and land environment in particular and biosphere in general? (20)

**SECTION - B**

3. (a) What do you understand by the term "green house effect"? What are its causes?  
(b) What is the use of the electrostatic precipitator?  
(10+10=20)
4. (a) How photochemical smog occurs?  
(b) What changes use of CNG has brought as far as urban atmosphere in big Indian cities is concerned?  
(10+10=20)

**SECTION - C**

5. Sketch, label and explain function of each unit of trickling filter based sewage treatment plant. (20)

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6. Sewage is being discharged into a river. You have to analyse sewage and river water samples. Which water quality parameters you will select for analysis and why? (20)

**SECTION - D**

7. (a) List the impacts of noise other than on human beings.  
(b) How the noise is controlled in case of an industry?  
(10+10=20)
8. Solid waste is being dumped on the land in a city. List the impacts of such a dumping. (20)

**SECTION - E**

9. (a) Two water samples collected from a well and river are to be analysed. Which will contain (i) minerals (ii) turbidity and (iii) microorganisms?  
(b) Define potability of water. How it is different than palatability?  
(c) Which impurities could be removed in a septic tank?  
(d) What are the main sources of CO pollution?  
(e) Which pollutants are mainly added in air by transportation?  
(f) Why alum is added in water purifications.  
(g) What is the significance of DO in river water?  
(h) What are the Indian standards for BOD<sub>5</sub> for disposal of treated wastewater into rivers?  
(i) How odour is expressed? List sources of odour in an urban environment.  
(j) What type of air pollutants could be removed using a cyclone? (2×10=20)