

CS/2110

5496/HH

Sem - III

Attempt two question from the each Section A and B and the section C is compulsory  
Time 3 hrs MM : 74

**Section A**

1. Enlist out the various modern fuels and explain their impact on the environment 11
2. Describes the mechanism of biogas production and what are different factors that affects the bioass production 11
3. What do you understand by the term "Phytoremediation". Briefly describes the phytoremediation of heavy metals and xenobiotic compounds from soil. 11
4. Briefly describe the mechanism of degradation of various types of hydrocarbons including halogenated hydrocarbons 11

**Section B**

5. How will you proceed for the aerobic treatment of industrial effluent? Discuss in detail 11
6. Briefly discuss the mass production of 11
7. Define bioleaching. Discuss in detail the mechanism of uranium leaching 11
8. Write in detail the environmental significance of genetically modified animals 11

**Section C**

9. Explain the following (15x2) 30
  - i. Biofuel
  - ii. Solubilization
  - iii. Anaerobic digestion
  - iv. Green manure
  - v. Xenobiotic compounds
  - vi. F/M ratio
  - vii. Lagoon
  - viii. Oil eating bacteria
  - ix. Activated sludge
  - x. Nitrogenase enzyme
  - xi. In situ bioremediation
  - xii. *nif* genes
  - xiii. biomining
  - xiv. Slope leaching
  - xv. VAM