

RollNo.:

National Institute of Technology, Delhi

Name of the Examination: B. Tech

End Semester Examination (Autumn, 2019)

Branch: ECE & EEE

Semester: First

Title of the Course: Environmental Studies

Course Code: MEL 101

Time: 3 Hours

Maximum Marks: 50

Note: Attempt All Questions from Sections A, B, C

SECTION: A (Short Answer Type Questions/ to be answered in about 100 words).

(Marks: 1 x 10 = 10)

1. Why earth re-emits radiation in the form of IR?
2. Why Ozone depletion is greater in Antarctica than North Pole?
3. Explain the role of ocean current in climate change
4. Differentiate between BOD and COD
5. What were the two amendments in Montreal Protocol?
6. Explain the significance of Tropopause
7. Differentiate between aerobic and anaerobic treatments.
8. Why temperature decreases with increase in altitudes in troposphere?
9. Explain how incoming short wave radiations convert in long wave (IR) after striking to Earth
10. What are the three mechanisms suggested to cut GHG emissions as per Kyoto protocol?

SECTION: B (Short Answer Type Questions to be answered in about 300 words).

Attempt any FOUR questions.

(Marks: 5 x 4 = 20)

1. How Ozone is formed in Troposphere? Explain Ozone layer depletion and its effects in detail. Also, explain the salient features of Montreal protocol.
2. Explain different types of water pollutants. Also, write a detailed note on wastewater treatment scheme with help of suitable diagram.
3. What is Natural Green house effect? Explain in detail the mechanism of enhanced green house effect and its consequences. Also, discuss Kyoto Protocol.
4. Define Biodiversity? Write a detailed note on the Man and Biosphere (MAB) programme.
5. What are the types of Biodiversity? Explain in detail the various conservational strategies of biodiversity.

SECTION: C (Medium Answer Type Questions to be answered in about 600 words).

Attempt any TWO questions.

(Marks: 10 x 2 =20)

1. What is Anaerobic Digestion? Explain in detail the microbiology, conditions and microorganisms involved in Anaerobic Digestion. Also, discuss its advantages and disadvantages.
 2. Differentiate between Pollutants and Contaminants. Write a detailed note on types, generation and effects of air pollution (on human health, buildings and plants) along with control measures.
 3. Differentiate between Photochemical and classical smog? Explain in detail the mechanisms, nature, conditions, effects and control measures of Photochemical smog.
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