RollNo.:.....

National Institute of Technology, Delhi

Name of the Examination: B. Tech

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 (Very short Answer Type Questions).

(Marks: 1 x10 = 10)

1. Why "Ozone hole" appeared over Antarctica when Ozone depleting gases are present throughout the stratosphere?
2. What are the three mechanisms suggested to cut GHG emissions as per Kyoto protocol?
3. Are there regulations on the production and use of Ozone depleting substances?
4. Why are modern automobiles vehicles fitted with the catalytic convertor?
5. Why temperatures increase with increase in altitude in Stratosphere?
6. Explain the role of ocean current in climate change
7. What is the difference between climate and weather?
8. Why water vapor does not reach to stratosphere?
9. Why biological treatment is preferred if waste contains organics?
10. Why earth emits radiation in the form of IR?

SECTION: B (Short Answer Type Questions)
Attempt any FOUR questions.

(Marks: 5 x 4=20)

1. Explain the significance of Green House Effect? Explain in detail the mechanism of enhanced green house effect and its impact on fauna and flora.
2. Explain Sulfur cycle with the help of neat sketch in detail.
3. How Ozone is formed in Troposphere? Explain the role of CFCs in Ozone layer depletion and its effects in detail.
4. Differentiate between primary and secondary pollutant. Explain wastewater treatment plant with the help of suitable diagram.
5. Write a detailed note on (any two)
   a. Acid Rain b. Soil pollution c. Thermal Pollution

SECTION-C: (Long answer type questions)
Attempt any TWO questions

(Marks: 10 x 2 =20)

1. What is the difference between Photochemical and classical smog? Explain in detail the formation, nature, conditions, effects and control measures of Photochemical smog.
2. Define renewable and nonrenewable resources. Explain in detail the microbiology, conditions and microorganisms involved in anaerobic digestion. Also, discuss its advantages and disadvantages.
3. Define air pollution. Write a detailed note on generation and effects of air pollution (on human health, buildings and plants) and control measures.