



VIT

Vellore Institute of Technology

Final Assessment Test - April 2025

Course: BCLE214L - Global Warming

Class NBR(s): 3726 / 3727 / 4589

Time: Three Hours

Slot: D1+TD1

Max. Marks: 100

- KEEPING MOBILE PHONE/ANY ELECTRONIC GADGETS, EVEN IN 'OFF' POSITION IS TREATED AS EXAM MALPRACTICE
- DON'T WRITE ANYTHING ON THE QUESTION PAPER

Answer ALL Questions

(10 X 10 = 100 Marks)

1. Describe the importance of the ozone layer and its role in protecting life on Earth. How does ozone depletion contribute to environmental challenges?
2. What is atmospheric stability, and why is it crucial for weather patterns? Discuss the factors that influence atmospheric stability.
3. Draw the global carbon emission chart by various energy sectors. Discuss the mitigation strategy for each of the major sectors.
4. Explain how global warming is leading to the melting of polar ice caps and glaciers. What are the consequences of these changes on sea levels and coastal areas?
5. What is the difference between regional climate models (RCM) and global climate models (GCM)? How do these models help in understanding regional and global climate impacts?
6. Discuss the significance of Kyoto protocol and its main goals towards the reduction of greenhouse gas emissions? Discuss the successes and limitations of the Kyoto protocol with real time examples.
7. What are the green building technologies, and how do they contribute to reducing energy consumption and mitigating the effects of global warming.
8. Describe the concepts of adiabatic lapse rates and temperature inversion. How do they affect weather and climate conditions
- 9.a) Analyse the changes in temperature, precipitation, and sea level patterns as a result of global warming. How do these changes impact the environment and human society?

OR

- 9.b) What are the risks of irreversible environmental changes due to global warming? Discuss how these risks might affect future generations and ecosystems
- 10.a) Discuss the process of climate simulation and drift. How do climate models account for uncertainties in predicting future climate changes?

OR

- 10.b) Describe the Clean Development Mechanism (CDM) and its role in promoting sustainable development while reducing global warming. How does it involve developed and developing countries?

⇔⇔⇔ BI/D/TY ⇔⇔⇔