



VIT

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SLOT: D2+TD2

Reg No.: 24BCE2499

SCHOOL OF CIVIL ENGINEERING
CONTINUOUS ASSESSMENT TEST (CAT) – II
WINTER SEMESTER 2024-25

Programme Name & Branch: B.Tech-Civil Engineering

Course Code : BCLE214L

Course Name : Global Warming

Faculty Name(s) : Vaani N, Kavitha MS

Class Number(s) : VL2024250503717; VL2024250503716

Exam Duration : 90 minutes

Maximum Marks: 50

Answer all the questions

Q. No	Question	Marks	CO	BL
1.	Elucidate the relationship between changing precipitation patterns and increased freshwater discharge into oceans, highlighting how these factors contribute to rising sea levels by discussing the key components of the phenomenon involved.	10	1	2
2.	How does global warming affect the Himalayan glaciers, and what are the implications for water resources in South Asia?	10	3	2
3.	Describe in detail about the roles that the socio-economic factors play in enhancing vulnerabilities to climate change impacts in Asian regions.	10	2	2
4.	A government wants to develop a climate change mitigation policy that aims to reduce greenhouse gas emissions by 50% over the next decade. They have decided to use a climate model to simulate the potential impacts of different policy scenarios on greenhouse gas emissions. 1. Describe the type of climate model that would be most suitable for this scenario, and explain why. 2. What are the key parameters that the climate model should include to accurately simulate the impacts of different policy scenarios on greenhouse gas emissions? 3. How would you use the climate model output to evaluate the effectiveness of different policy scenarios in reducing greenhouse gas emissions?	10	4	4
5.	A climate modeler notices that his/her model consistently overestimates temperature rises in a particular region. Describe the potential sources of bias that might be contributing to this error. Explain how the modeler might investigate and address these biases to improve the model's accuracy.	10	4	3