U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

June 2025 Semester End Main Examinations

Programme: B.E. **Semester: VI**

Branch: Institutional Elective **Duration: 3 hrs.**

Course Code: 23CV6OECCC / 22CV6OECCC **Max Marks: 100**

Course: Climate Change and Carbon capture

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

		UNIT - I	*CO*	*PO*	Marks
1	a)	Examine the structure and composition of the earth's atmosphere and assess the temperature variation across different altitudes using a schematic.	*CO1*	*PO1*	**10**
	b)	Analyze the nitrogen cycle and evaluate its role in atmospheric balance using an appropriate sketch.	*CO1*	*PO1*	**10**
		OR			
2	a)	Assess and classify the various sources of greenhouse gas emissions in BMS College of Engineering campus.	*CO1*	*PO1*	**10**
	b)	Analyze the impacts of greenhouse gases and evaluate suitable control measures.	*CO1*	*PO1*	**10**
		UNIT - II			
3	a)	Evaluate different types of floods and assess the effectiveness of corresponding control measures.	*CO1*	*PO1*	**10**
	b)	Analyze the impacts of climate change on the agricultural sector.	*CO1*	*PO1*	**10**
		OR			
4	a)	Elucidate the different types of droughts and evaluate appropriate mitigation strategies.	*CO1*	*PO1*	**10**
	b)	Assess the influence of climate change on industrial development and operations.	*CO1*	*PO1*	**10**
		UNIT - III			
5	a)	Examine the key features of the Paris Agreement on global warming.	*CO2*	*PO1*	**10**

		b)	Evaluate the contributions of individuals, nations, and global organizations in addressing climate change.	*CO2*	*PO1*	**10**
			OR			
	6	a)	Analyze the initiatives undertaken by India under the Paris Agreement.	*CO2*	*PO1*	**10**
		b)	Assess the benefits and limitations of the Paris Agreement in mitigating climate change.	*CO2*	*PO1*	**10**
			UNIT - IV			
	7	a)	Elucidate the salient features of the Kyoto Protocol.	*CO2*	*PO1*	**10**
		b)	Analyze the flexibility mechanisms under the Kyoto Protocol using an illustrative diagram.	*CO2*	*PO1*	**10**
			OR			
	8	a)	Criticize whether Kyoto protocol is considered as a success or a failure.	*CO2*	*PO1*	**10**
		b)	Examine various clean development mechanism (CDM) projects sectors with examples.	*CO2*	*PO1*	**10**
			UNIT - V			
	9	a)	Examine the major provisions of the Montreal Protocol on ozone protection.	*CO2*	*PO1*	**10**
		b)	Analyze the working principle of Bioenergy with Carbon Capture and Storage (BECCS) as a carbon sequestration strategy using a diagram.	*CO2*	*PO1*	**10**
			OR			
	10	a)	Evaluate the sources, effects, and control strategies for ozone layer depletion.	*CO2*	*PO1*	**10**
		b)	Elucidate the working principle of direct air capture technology in carbon sequestration with the aid of a diagram.	*CO2*	*PO1*	**10**

****