

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Third Semester

Environmental Engineering

EV4014 - Climate Change and Modeling

Regulations - 2021

Duration : 3 Hrs

Maximum Marks: 100

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	List out the various components of climate change.	RE	1	2
2.	Conclude the drawbacks of a global climate model.	EV	1	2
3.	What does the IPCC say about global warming?	RE	2	2
4.	What is the purpose of the Intergovernmental panel on climate change?	RE	2	2
5.	What is the importance of climate models?	RE	3	2
6.	Write down the use of global climate model GCM.	UN	3	2
7.	Necessitate needing for downscaling.	RE	4	2
8.	Write short note on climate variable.	UN	4	2
9.	Define post processing.	UN	5	2
10.	What is meant by ArcGIS.	RE	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Illustrate about the evolution of atmosphere.	UN	1	7
	ii How carbon dioxide and sulphur dioxide influences climate change?	UN	1	6
	Or			
	b i Write short notes on weather and climate?	UN	1	7
	ii Explain in detail about applications in climate change projections.	UN	1	6
12.	a Explain briefly about the Intergovernmental panel on climate change.	UN	2	13
	Or			
	b Explain with a neat sketch, explain briefly about the representative concentration pathways.	UN	2	13
13.	a What are the new techniques available for the evaluating the regional climate models?	CR	3	13
	Or			
	b Explain briefly advantages and disadvantages of GCMs and RCMs.	CR	3	13

14.	a	Differentiate between the statistical and dynamical scaling.	UN	4	13
		Or			
	b	Briefly explain the various types of model domain with neat drawing.	UN	4	13
15.	a	Explain in detail about climate change impact.	UN	5	13
		Or			
	b	Elaborate the importance and categories of vulnerability assessment.	UN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Explain the different types of climatic models? Explain briefly.	UN	3	15
		Or			
	b	Explain the various climate parameters with neat sketch.	UN	1	15