RollNo.

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech(Full Time) - END SEMESTER EXAMINATIONS, NOV/DEC 2023

B.E. Geo-Informatics Engineering

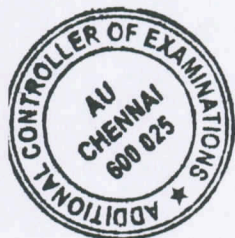Semester VII

GI5001 CLIMATE CHANGE STUDIES

(Regulation2019)

Time:3hrs   Max.Marks: 100

CO1	Understand the basic concepts of climate and climate change
CO2	Understand the natural and human impacts on climate change.
CO3	Understand the various methods to assess the evidence for climate change.
CO4	Understanding the climate change effects like Global warming, impacts on Agriculture, water body, health and their adaptations.
CO5	Understand the climate models to predict the climate and adaptation techniques for future.

BL – Bloom's Taxonomy Levels
(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A(10x2=20Marks)
(Answer all Questions)

Q.No	Questions	Marks	CO	BL
1	Differentiate weather and climate.	2	1	2
2	List the causes of climate change.	2	1	1
3	What types of pollutants are emitted from vehicles? Which is more harmful? Why?	2	2	3
4	What is Life cycle assessment? How it helps to reduce climate impacts?	2	2	4
5	How change assessment helpful to control climate change?	2	3	3
6	List the indicators of vegetation for assessing the climate change.	2	3	2
7	What are the causes of global warming	2	4	2
8	Why the effects of LULC have to be studied for assessing the climate change?	2	4	3
9	How the responses of climate changes are studied?	2	5	3
10	What is carbon sequestration?	2	5	2

PART- B(5x 13=65Marks)
(Restrict to a maximum of 2 subdivisions)

Q.No	Questions	Marks	CO	BL
11 (a)	Discuss about climate cycles.	13	1	1
	OR			
11 (b)	Explain about the impacts of ocean variability, earthquake and volcanoes on climate change.	13	1	1
12 (a)	Elaborate about the impacts of agriculture and industrial activities on climate change. How remote sensing can be helpful to study the impact?	13	2	4
	OR			
12 (b)	Detail about the impacts of urbanization and vehicular transport impact on climate change and write the role of remote sensing for its assessment.	13	2	4
13 (a)	Explain about the archeological and historical evidences of climate change.	13	3	4
	OR			
13 (b)	Discuss about how the climate change assessment can be studied through various evidences such as terrain evaluation, ice and glacier changes and sea level variations?	13	3	4
14 (a)	Explain about the impacts of land use land cover change on global warming. How land use adaptation helps to reduce the global warming impacts	13	4	3
	OR			
14 (b)	Elaborate about the global warming impacts on human health and water bodies.	13	4	3
15 (a)	Discuss in detail about GCM and RCM	13	5	2
	OR			
15 (b)	Explain about the salient points of IPCC reports of climate change.	13	5	2

PART- C(1x 15=15Marks)
(Q.No.16 is compulsory)

Q.No	Questions	Marks	CO	BL
16.	Discuss about the role of geospatial techniques for climate change with case studies.	15	4	5