

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: M SC  
BRANCH: GEOINFORMATICS**

**SEMESTER : II  
SESSION : SP/2025**

**SUBJECT: GI514R1 GEOINFORMATICS CLIMATE CHANGE AND ENVIRONMENTAL IMPACT ASSESSMENT.**

**TIME: 3 HOURS**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	In what ways does weather differ from climate? Explain with examples.	[5] 1	2
Q.1(b)	Classify various types of Drought. How different climatic factors influence the occurrence of drought.	[5] 1	3
Q.2(a)	What is Time-Series Analysis? Give an example as to how it may be used in remote Sensing Case Studies for climate change.	[5] 2	5
Q.2(b)	How do plants act as indicators of climate change? Cite giving a suitable example.	[5] 2	5
Q.3(a)	Describe the difference between NDSI and any thermal snow index.	[5] 3	4
Q.3(b)	Describe the significance of the snow area depletion curve in the context of climate change.	[5] 3	5
Q.4(a)	Identify the gases responsible for the greenhouse effect and justify the use of the term 'greenhouse' for them.	[5] 2	2
Q.4(b)	How do aerosols affect Earth's radiation balance? List their sources and discuss both their cooling and warming effects.	[5] 2	3
Q.5(a)	Describe IPCC, Working Groups, and Task Force.	[5] 4	3
Q.5(b)	Describe the simple checklist method, descriptive checklist method, weighting checklist method, and weighting-scaling checklist method of EIA with the help of suitable examples.	[5] 4	4

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