

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

**CLASS: MTECH.
BRANCH: REMOTE SENSING**

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

SUBJECT: RS527 REMOTE SENSING OF ENVIRONMENT

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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Q.1(a)	What do you understand by the 'Sustainable Development'? Discuss and elaborate the key indicators of Sustainable Development?	[5] 1	3
Q.1(b)	What is meant by Hydrosphere, Lithosphere, Cryosphere and Biosphere? Discuss and comment on the interaction of the Lithosphere with the other spheres to shape up Earth's Temperature and Climate.	[5] 1	4
Q.2(a)	Give the structure and functions of Ecosystem.	[5] 2	2
Q.2(b)	What are the essential components and probable outcome of a good 'Ecological Model'?	[5] 2	5
Q.3(a)	Discuss with a holistic approach what may be the futuristic effect of Global warming on the Earth's Biosphere.	[5] 5	5
Q.3(b)	What do you understand by the term 'Acid Rain'? What are its impacts on agriculture?	[5] 5	3
Q.4(a)	What is meant by 'Solid Waste Management (SWM)' and what are its important types? How can suitable solid waste disposal sites be identified using remote sensing and GIS	[5] 4	4
Q.4(b)	Discuss the role of remote sensing imagery and data in EIA giving a case study.	[5] 3	4
Q.5(a)	Based on factsheets of the Intergovernmental Panel on Climate Change (IPCC), explain what is IPCC and what protocol it follows to approve the climate reports?	[5] 5	4
Q.5(b)	As per the State of Climate Report 2024 of World Meteorological Organization (WMO), give a perspective of key climate indicators and their latest status with respect to climate change.	[5] 5	4

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