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

CLASS: MSC/PRE-PHD **SEMESTER : I**
BRANCH: GEOINFORMATICS **SESSION : MO/2025**

SUBJECT: GI501 PRINCIPLES OF REMOTE SENSING

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.

			CO	BL
Q.1(a)	How are different types of resolutions interrelated in remote sensing systems? Why is temporal resolution important for monitoring dynamic phenomena such as floods or vegetation?	[5]	1	2
Q.1(b)	Describe the complete 7 step remote sensing processes with a neat diagram. Name any one satellite sensor and explain its use.	[5]	1	2,1
Q.2(a)	Write any five differences between the Push broom and the Whiskbroom scanning systems in details with example.	[5]	2	1
Q.2(b)	Compare the advantages and limitations of Sun-synchronous and Geo-synchronous satellites in Earth observation. What is the difference with Geo-synchronous and geo stationary satellite?	[5]	2	2
Q.3(a)	What are the types of referencing schemes, Discuss them.	[5]	3	2
Q.3(b)	Elaborate upon the any 5 open sources of data availability	[5]	3	3
Q.4(a)	Write a short note on conduction, convection, and radiation. Why does water heat up and cool down more slowly than land?	[5]	4	1,2
Q.4(b)	Discuss the mechanism of Speckle Removal	[5]	4	2
Q.5(a)	Diagrammatically explain the Spectral Response pattern of Vegetation	[5]	5	3
Q.5(b)	Elaborate the application of remote sensing in natural resource management	[5]	5	2

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