

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

**CLASS: BTECH
BRANCH: CSE/AI ML/CIVIL**

**SEMESTER : VII/ADD
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.
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		CO	BL
Q.1(a)	What is satellite? Describe the 7 components of remote sensing from the energy source to the end user.	[5] 1	2
Q.1(b)	Write a short note on: Spectral, Spatial, Temporal, and Radiometric resolution.	[5] 2	2
Q.2(a)	Differentiate between Sun synchronous and geostationary satellite. Name the first Indian satellite.	[5] 1	2
Q.2(b)	Write a short note on Active Sensor, Passive Sensor. What is the visible range of wavelength?	[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	2
Q.4(a)	Define Thermal Inertia and Apparent Thermal Inertia.	[5] 4	2
Q.4(b)	How does surface roughness affect polarization.	[5] 4	2
Q.5(a)	Diagrammatically explain the Spectral Response pattern of Vegetation	[5] 5	3
Q.5(b)	Discuss in detail how remote sensing techniques are used for the assessment, monitoring, and management of natural resources	[5] 5	2

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