

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- V EXAMINATION-SUMMER 2023****Subject Code: 3150617****Date: 23/06/2023****Subject Name: Remote Sensing and GIS****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Write the types of views a map can be visualized in GIS.	03
	(b) What are raster and vector? Write the basic differences between raster and vector.	04
	(c) Explain concept of remote sensing.	07
Q.2	(a) Define metadata, attribute data & spatial data.	03
	(b) Explain the principle of Remote Sensing.	04
	(c) Write short note on: Active and Passive Remote Sensor.	07
	OR	
	(c) What do you understand by 'map'? Differentiate between topographic and thematic map.	07
Q.3	(a) Write a note on imaging sensors for digital image.	03
	(b) What are the disadvantages of Remote sensing?	04
	(c) What are the seven elements in remote sensing?	07
	OR	
Q.3	(a) Explain microwave remote sensing.	03
	(b) Explain in brief different components of GIS.	04
	(c) Explain different resolution with their significance.	07
Q.4	(a) Write any five file formats of raster data.	03
	(b) Explain air borne and space borne sensors.	04
	(c) Write any 10 different applications of GIS.	07
	OR	
Q.4	(a) Write any five file formats of vector data.	03
	(b) Explain the procedure of georeferencing in QGIS software.	04
	(c) Write salient features of remote sensing tool ENVI or ERDAS.	07
Q.5	(a) Write a note on reference co-ordinate systems.	03
	(b) What are the advantages of GIS over map.	04
	(c) Write a note on Remote Sensing and its application to disaster management.	07
	OR	
Q.5	(a) Explain the concept of “Overlay analysis”.	03
	(b) Describe features of important GIS software packages.	04
	(c) Explain image interpretation strategies.	07
