

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V(NEW) EXAMINATION – SUMMER 2022****Subject Code:3150617****Date:02/06/2022****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 any five file formats of raster data.	03
	(b) Write any five tools (softwares) used in GIS.	04
	(c) Give your views on image interpretation strategies.	07
Q.2	(a) What do you mean by spatial data? Write in brief.	03
	(b) Differentiate active and passive remote sensing.	04
	(c) Write a note on EMR.	07
	OR	
	(c) Write a note on interaction of EMR with earth's surface.	07
Q.3	(a) Write the types of views a map can be visualised in GIS.	03
	(b) Differentiate supervised and unsupervised classification.	04
	(c) Write about different sensors in accordance to remote sensing.	07
	OR	
Q.3	(a) Define swath and explain the concept of orbital calendar.	03
	(b) What are the different components of GIS? Explain in brief.	04
	(c) Write a note on image processing systems.	07
Q.4	(a) Give a brief idea about GSLV and PSLV.	03
	(b) Give a brief introduction of a digital image.	04
	(c) Explain the characteristics of different coordinate systems in GIS.	07
	OR	
Q.4	(a) Why geo-referencing is required in GIS?	03
	(b) What is the significance of overlaying? Write in brief.	04
	(c) Explain Buffering and Neighborhood as a GIS analysis function.	07
Q.5	(a) Write any five file formats of vector data.	03
	(b) How do you differentiate public domain softwares with other softwares available in GIS? Explain with examples	04
	(c) Discuss in detail about any two case-studies of applications of remote sensing and GIS in the field of civil engineering.	07
	OR	
Q.5	(a) Write the full forms of GIF, DEM and JPEG.	03
	(b) What do you mean by attribute data? Write in detail.	04
	(c) Write about the applications of GIS in different field of civil engineering in detail.	07
