R22 Regulation *Subject code: 4O8EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Regular Examinations, May 2026

Remote Sensing and Geographic Information System

(CSE)

Maximum Marks: 60 Date:06.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a)	Define aerial photogrammetry.	1M	1	BTL1
b)	What is relief displacement?	1M	1	BTL1
c)	Define electromagnetic spectrum.	1M	2	BTL1
d)	What is false color composite?	1M	2	BTL2
e)	Define GIS.	1M	3	BTL1
f)	What is map projection?	1M	3	BTL2
g)	Define topology in GIS.	1M	4	BTL1
h)	What is vector data model?	1M	4	BTL2
i)	Define raster data.	1M	5	BTL1
j)	What is digitization?	1M	5	BTL2

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) Describe the principles of photogrammetry. b) Explain parallax measurement and its applications.	5M 5M	1	BTL2
	OR			
3	a) Explain geometry of vertical aerial photograph. b) Discuss stereoscopy and fiducial points.	5M 5M	1	BTL2
4	a) Explain remote sensing process with diagram. b) Discuss advantages and limitations of remote sensing.	5M 5M	2	BTL3
	OR			
5	a) Illustrate interaction of EMR with atmosphere and earth surface. b) Compare different types of satellite sensors.	5M 5M	2	BTL4
6	a) Explain components of GIS. b) Differentiate spatial data and attribute data.	5M 5M	3	BTL3
	OR			
7	a) Explain coordinate systems and datums. b) Analyze different types of map projections.	5M 5M	3	BTL3

8	a) Explain vector data structures with examples. b) Discuss topology and its importance.	5M 5M	4	BTL3
	OR			
9	a) Describe object-based vector data model. b) Illustrate geodatabase structure and relationships.	5M 5M	4	BTL3
10	a) Explain raster data model and its elements. b) Analyze raster and vector data integration.	5M 5M	5	BTL3
	OR			
11	a) Describe GIS data input methods. b) Evaluate applications of GIS in environment and agriculture.	5M 5M	5	BTL3