Regulation:R22 *Subject code:4E4AF*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Regular/Supplementary Examinations, June 2026

REMOTE SENSING & GEOGRAPHIC INFORMATION SYSTEM

(CE)

Maximum Marks: 60 Date:19.06.2026 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)	What is scale in aerial photographs?	1M	CO1	L1
b)	Define parallax.	1M	CO1	L1
c)	What is FCC (False Color Composite)?	1M	CO2	L1
d)	Define resolution in remote sensing.	1M	CO2	L1
e)	What is attribute data?	1M	CO3	L1
f)	Define GIS analysis.	1M	CO3	L1
g)	What is geometric representation?	1M	CO4	L1
h)	Define coverage.	1M	CO4	L1
i)	What is pixel?	1M	CO5	L1
j)	Define digitizing.	1M	CO5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) Explain scale determination of vertical aerial photographs.	5M	CO1	L2
	b) Describe height measurement using single vertical photograph.	5M	CO1	L2
	OR			
3	a) Discuss fundamentals of stereoscopy in photogrammetry.	5M	CO1	L3
	b) Explain relief displacement and its applications.	5M	CO1	L2
4	a) Explain remote sensing data collection methods.	5M	CO2	L2
	b) Discuss advantages and limitations of remote sensing.	5M	CO2	L3
	OR			
5	a) Explain electromagnetic radiation and its interaction with earth features.	5M	CO2	L2
	b) Describe characteristics of Blue Bird satellites and IKONOS.	5M	CO2	L2
6	a) Explain spatial and attribute data integration.	5M	CO3	L2
	b) Discuss GIS data management and display techniques.	5M	CO3	L3

	OR			
7	a) Explain geographic coordinate system and map projections. b) Describe GIS applications in urban planning and resource management.	5M 5M	CO3 CO3	L2 L2
8	a) Explain data models for composite features. b) Discuss topology and its significance in GIS.	5M 5M	CO4 CO4	L2 L3
	OR			
9	a) Describe shapefile structure and its components. b) Explain classes and relationships in vector data model.	5M 5M	CO4 CO4	L2 L2
10	a) Explain elements and types of raster data. b) Discuss raster data structure and storage methods.	5M 5M	CO5 CO5	L2 L3
	OR			
11	a) Explain scanning and on-screen digitizing techniques. b) Describe GIS applications with real-world examples.	5M 5M	CO5 CO5	L2 L2