R20 Regulation *Subject code:3E6AB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, May 2025

REMOTE SENSING & GEOGRAPHIC INFORMATION SYSTEM

(CE)

Maximum Marks: 70 Date: 25.06.2025 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 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 (10X2M=20 Marks)		Marks	CO	BTL
1	Define fiducial mark.	2M	1	L1
2	What equipment is needed for photogrammetry?	2M	1	L1
3	Define resolution.	2M	2	L1
4	List out the elements of Visual Image Interpretation technique.	2M	2	L1
5	Define GIS.	2M	3	L1
6	List out the different operations performed in GIS?	2M	3	L1
7	What is meant by vector data?	2M	4	L1
8	List out the forms of vector data representation.	2M	4	L1
9	What is IMGRID model?	2M	5	L1
10	What is meant by metadata?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) List out the Applications of Photogrammetry. b) What are the challenges in photogrammetry?	5M 5M	1	L2
	OR			
12	What are the Advantages and Disadvantages of Aerial Photogrammetry.	10M	1	L2
13	a) Explain in brief the energy interaction with Earth surface. b) What are the Advantages and disadvantages of Remote sensing?	5M 5M	2	L2
	OR			
14	a) What are the applications of Remote sensing? b) What is meant by Refraction? Explain it briefly with Snell's law.	5M 5M	2	L2
15	a) Explain in detail the significance of Four M's of GIS with the help of a schematic representation. b) Briefly explain the components of GIS.	5M 5M	3	L2
	OR			
16	Explain in detail about different map projections in GIS.	10M	3	L2
17	Explain in detail the different topological rules with a neat sketch.	10M	4	L2
	OR			

18	a) What is meant by composite feature? Explain different data modes for composite features. b) Write down advantages of different vector models.	5M 5M	4	L2
19	a) What is meant by Overlay? Explain Raster Overlay with a neat sketch. b) Explain in detail the components of Metadata.	5M 5M	5	L2
	OR			
20	a) Differentiate between manual and automatic digitization. b) What are the errors formed during digitization? Explain them with a neat sketch.	5M 5M	5	L2