R20 Regulation *Subject code: 3E6AB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Regular Examinations, June/July 2023

REMOTE SENSING & GEOGRAPHIC INFORMATION SYSTEM

(Civil Engineering)

Maximum Marks: 70 Date:03.07.2023 Duration: 3 hours

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

1 What is meant by Photogrammetry?
2 What are the uses of Aerial and/or Satellite Photogrammetry?
3 What is meant by Spectral Resolution?
4 What is visible wavelength band used in Earth Remote Sensing?
5 What are the major components of GIS system?
6 Define cylindrical projection.
7 What is base map?
8 List out different software used in Geographic Information System?
9 Name the methods used for conversion of data between raster and vector data forms.
10 What are the advantages of raster data model?

Part-B

Answer All the following questions. (10MX 5=50Marks)

11 Elucidate the basic geometrical elements of a vertical aerial photograph with a neat sketch. (10)

OR

12 A. Discuss the parallax measurement of height determination. (8)
B. What is photo scale? Give an example. (2)

13 Analyze the elements or processes involved in earth remote sensing with a neat diagram. (10)

OR

14 Explain about energy sources available for remote sensing with a neat sketch. Discuss spectral characteristic curves. (10)

15 Describe the fundamental projection classification of maps. (10)

OR

16 Write short notes on the following term in the context of geographic coordinate system of Earth: latitude, longitude, parallel, meridian. (10)

17 A. What is topology and its importance in GIS? (6M)
B. Write about the method of obtaining vector data using scanners. (4M)

OR

18 A. Explain Vector data storage and attribute data storage in GIS. (6M)
B. Compare and contrast the raster and vector data model. (4M)

19 Explain in detail the Digitization and Scanning Processes in GIS. (10)

OR

20 Describe how raster and vector data models are handled in GIS. State their advantages and disadvantages. (10)