Code No: R193101M **R19** **SET - 1**

III B. Tech I Semester Regular Examinations, February-2022

GEO-SPATIAL TECHNOLOGIES

(Civil Engineering)

Time: 3 hours Max. Marks: 75

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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UNIT-I

1. a) Define GIS, and write a brief note on components of it. [8M]
   b) Write a brief note on common coordinate system and geographic coordinate system. [7M]

(OR)

2. a) Various types of map projections used in GIS. [8M]
   b) Write briefly the history of GIS. [7M]

UNIT-II

3. a) Give the details of vector data structure and mention its merits and demerits in comparison with raster data. [8M]
   b) Define and compare Geometric errors and radiometric errors. [7M]

(OR)

4. a) Differentiate between Raster and Vector Overlay Operations. [8M]
   b) Write a brief note on systematic and non-systematic errors. [7M]

UNIT-III

5. a) Write the advantages and disadvantages of vector and raster data model. [8M]
   b) Write a brief note on transformations. [7M]

(OR)

6. a) Write in brief about digital elevation model. [8M]
   b) Briefly explain about buffer analysis and overlay analysis. [7M]

UNIT-IV

7. a) Explain application in GIS for environmental and natural resource management. [8M]
   b) Write a brief note on Global Positioning Systems (GPS) and its applications. [7M]

(OR)

8. a) Write a brief note on urban planning and management. [8M]
   b) Discuss the application of GIS in municipal application. [7M]

UNIT-V

9. a) Discuss briefly about the objectives and limitations of remote sensing. [8M]
   b) Discuss briefly remote sensing platforms and sensors. [7M]

(OR)

10. a) Define remote sensing, back ground and write a brief note on electro-magnetic radiation. [8M]
    b) Application of remote sensing in Watershed modelling. [7M]

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