

**III B. Tech I Semester Regular Examinations, Dec/Jan – 2022-23**  
**REMOTE SENSING AND GIS**  
(Common to CE, MIN)

Time: 3 hours

Max. Marks: 70

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Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

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**UNIT-I**

1. a) Discuss the energy interaction with the surface of earth? [7M]  
b) What are the different types of scattering? Explain in detail about Rayleigh scattering? [7M]

(OR)

2. a) What are the current IRS satellite series? Discuss their applications. [7M]  
b) What is electromagnetic radiation? Give a neat sketch of its spectrum and wavelength ranges. [7M]

**UNIT-II**

3. a) Prepare the flow chart for digital image processing sequence by means. [7M]  
b) What is supervised classification? What are the basic steps and stages involved in a typical supervised classification? [7M]

(OR)

4. a) What is supervised classification? What are the basic steps and stages involved in a typical supervised classification? [7M]  
b) Describe the importance of image classification in Remote Sensing. [7M]

**UNIT-III**

5. a) Explain in detail about map projections. [7M]  
b) Define GIS. Briefly explain about spatial and aspatial data types with appropriate examples. [7M]

(OR)

6. a) Write about vector data models. [7M]  
b) Differentiate between data analysis and data display. [7M]

**UNIT-IV**

7. a) What do you understand about network analysis, explain in detail. [7M]  
b) Explain in detail about vector overlay operations. [7M]

(OR)

8. a) What does raster overlay? Explain it with suitable examples. [7M]  
b) What do you understand about network allocation and network tracing explain it in detail. [7M]



**UNIT-V**

9. a) Discuss the use of RS and GIS techniques in forestry [7M]  
applications.  
b) Discuss how GIS and RS can be applied for identifying the sites [7M]  
for artificial recharging of water table.
- (OR)
10. a) How remote sensing and GIS is useful in Land resources [7M]  
management?  
b) Explain with a suitable example how RS and GIS is helpful in [7M]  
land resource management.

