

Code No: **R204101Z**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025

REMOTE SENSING & GIS

(Open Elective)

Time: 3 hours

Max. Marks: 70

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

All Questions Carry Equal Marks

UNIT-I

1. a) Explain the process of remote sensing process with a neat sketch. [7M]
b) Discuss the energy interaction with soil and vegetation in remote sensing. [7M]
(OR)
2. a) Describe different types of scattering which occurs when EMR interacts with atmosphere? [7M]
b) Explain in detail about the airborne remote sensing and space borne remote sensing [7M]

UNIT-II

3. a) Explain the following Image Enhancement Techniques (i) Image Reduction & Magnification (ii) Contrast Enhancement [7M]
b) Analyze Height, depth, site, situation and association relating to elements of visual interpretation? [7M]
(OR)
4. a) Explain the visual image interpretation in detail. [7M]
b) Discuss supervised classification with a example. [7M]

UNIT-III

5. a) Describe the key components of GIS? [7M]
b) Explain spatial data input methods. [7M]
(OR)
6. a) Discuss various types of Map Projections used in GIS. [7M]
b) Differentiate between raster and vector data models? [7M]

UNIT-IV

7. a) Discuss the various raster overlay operations. [7M]
b) Explain arithmetic operations, logical operations. [7M]
(OR)
8. a) Explain logical operations done in spatial data analysis. [7M]
b) Discuss the concept of Network Tracking with suitable examples. [7M]

UNIT-V

9. a) Discuss the remote sensing and GIS application in land use and land cover studies. [7M]
b) Explain the use of Remote Sensing and GIS in Geomorphology. [7M]
(OR)
10. a) Discuss the remote sensing and GIS applications in developing urban and geology information. [7M]
b) Analyze the role of Remote Sensing and GIS in continuous monitoring of Floods with a case study? [7M]
