Code No: **R1641014**   **R16**   Set No. 1

IV B.Tech I Semester Regular/Supplementary Examinations, Jan/Feb - 2022
REMOTE SENSING AND GIS APPLICATIONS
(Civil Engineering)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B
*****

PART–A *(14 Marks)*

1. a) Write a short note on characteristics of remote sensing systems. [2]

    b) Discuss image processing. [3]

    c) Describe key components of GIS. [2]

    d) Write a short note on buffer analysis. [2]

    e) List out agriculture applications of GIS. [3]

    f) Discuss flood zoning. [2]

PART–B *(4x14 = 56 Marks)*

2. a) Explain IRS and LANDSAT in detail [7]

    b) Elaborate energy interaction with the earth surfaces. [7]

3. a) Explain the following image enhancement techniques [7]
        i)   image reduction & magnification
        ii)   contrast enhancement

    b) Explain digital image processing in detail. [7]

4. a) Describe map projections in detail. [9]

    b) Discuss about vector data models. [5]

5. a) Discuss network analysis in detail. [7]

    b) Explain overlay function and vector overlay operations. [7]

6.   How remote sensing and GIS is useful in Land resources management? Explain [14]
       with a suitable examples.

7. a) What are satellite data requirements for flood zone mapping? [7]

    b) Discuss the remote sensing approach for conducting ground water pollution [7]
       studies.

|''|'|||||''|''|'||'|