

Code No: **RT41015****R13****Set No. 1****IV B.Tech I Semester Supplementary Examinations, February/March - 2018****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 THREE questions from Part-B*

PART-A (22 Marks)

1. a) What do you understand by remote sensing? [3]
- b) What are image processing techniques? [4]
- c) Comparison between spatial and non spatial data. [4]
- d) What is data compression? [3]
- e) Write short notes on applications of RS & GIS drainage morphometry. [4]
- f) Write short notes on applications of RS & GIS in flood inundation [4]

PART-B (3x16 = 48 Marks)

2. a) Explain briefly about the process of Remote Sensing with a neat supporting diagram. [8]
- b) Discuss the following
(i) Band interleaved by pixel
(ii) Band interleaved by line [8]
3. a) Explain the term 'visual image interpretation'. Discuss the various image interpretation elements. [8]
- b) Explain the following Image Enhancement Techniques
(i) Image reduction & magnification
(ii) Contrast enhancement [8]
4. Explain in detail about the map projections in GIS. [16]
5. a) Describe vector overlay and raster overlay with examples. [8]
- b) What is raster overlay? Explain with suitable examples. [8]
6. a) Explain the use of RS GIS techniques in Forestry applications. [8]
- b) Discuss the geomorphological applications of GIS. [8]
7. Discuss the methodology with flowchart RS and GIS application to ground water prospects studies. [16]