

Code No: **R41014****R10****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: 75**

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) Define Remote Sensing and explain components with sketch. [8]
b) What is spectral signature? Explain spectral signature curves with reference to water, soil and vegetation? [7]
- 2 a) Write the classification of sensors based on energy sources, bands and wavelength in remote sensing. [8]
b) Define the term resolution. Explain types of resolutions with Examples. [7]
- 3 a) What is Digital Number in satellite image? Write about image enhancement techniques in digital image processing [8]
b) Write a brief note on radiometric corrections and geometric corrections in image pre-processing. [7]
- 4 a) What is cylindrical projection and explain the distortions occurred in process of map projection? [8]
b) How do you take decisions using GIS in Civil Engineering Applications? [7]
- 5 a) What are the different types compressing methods of raster data and explain? [8]
b) Explain spatial data and non-spatial data with examples and list out the input devices for spatial data. [7]
- 6 a) What is network analysis and explain different methods involved in network analysis? [8]
b) With neat sketches and examples explain algorithm used for point- in polygon overlaying and Line-in-line overlaying. [7]
- 7 What are the applications of Digital Elevation Model (DEM) in surveying and geomorphology [15]
- 8 Explain the methodology for assessing crop damage due to flood using remote sensing and GIS. [15]