

Code No: **R41014**

R10

Set No. 1

IV B.Tech I Semester Supplementary Examinations, November - 2016

REMOTE SENSING AND GIS APPLICATIONS

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) Write short notes on Rayleigh scattering [7]
b) Define remote sensing and briefly discuss the essential components of remote sensing [8]
- 2 a) Differentiate between geo stationary and sun synchronous satellites? [8]
b) What are the advantages and disadvantages of using Remote sensed data? [7]
- 3 a) Briefly explain the process of filtering with an example. [8]
b) Differentiate between supervised and unsupervised classification. [7]
- 4 a) Explain the merits and demerits between digital cartography and geographical information. [8]
b) What are the different types of coordinate systems used in GIS? [7]
- 5 a) Explain relational database management system with an example. [8]
b) Differentiate between raster and vector data models. [7]
- 6 a) Briefly explain the process of reclassification with an example [7]
b) Explain vector overlay with suitable examples. [8]
- 7 a) Discuss the Engineering and Military applications of Digital terrain models in detail. [7]
b) Briefly explain the importance of Land Use Land Cover changes in civil engineering applications. [8]
- 8 a) Explain how remote sensing and GIS techniques are used in mapping of flood-prone areas. [7]
b) Briefly explain how GIS and RS can be helpful in estimating the loss of reservoir capacity due to sedimentation. [8]