Code No: **R41014**   **R10**   Set No. 1

IV B.Tech I Semester Supplementary Examinations, March/April - 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) Explain energy interaction with earth surface features. Sketch the spectral reflectance of vegetation, soil and water. [8]
   b) What are atmospheric windows and indicate the major atmospheric windows used in remote sensing. [7]

2 a) What do you mean by active remote sensing and passive remote sensing? [8]
   b) What are the different types of resolutions used as parameters to sensor? [7]

3 a) What is image enhancement? Briefly explain the process of edge enhancement with suitable examples. [8]
   b) Briefly explain the elements of visual interpretation. [7]

4 a) Define GIS and explain the spatial and non-spatial data types in detail. [8]
   b) What are the different types of coordinate systems used in GIS. [7]

5 a) Discuss the data structures used in GIS. [8]
   b) Discuss the various sources of data input to GIS. [7]

6 a) Discuss the concept of Network Analysis with suitable examples. [8]
   b) What are the various output devices used in GIS. [7]

7 a) Discuss Mobile GIS Techniques. [8]
   b) Explain various application of land use/land cover analysis in water resources applications. [7]

8 a) Explain in detail how GIS is used for drought impact assessment and monitoring. [8]
   b) How would you estimate the water depth by using GIS? [7]