

Code No: **R41014****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, October/November - 2017****REMOTE SENSING AND GIS APPLICATIONS****(Civil Engineering)****Time: 3 hours****Max. Marks: 75****Answer any Five Questions****All Questions carry equal marks**

- 1 a) What do you understand by 'Remote sensing'? Explain the basic components of remote sensing. [8]
b) Explain wave mode of Electromagnetic radiation. [7]
- 2 a) Explain 'air borne' and 'space borne' remote sensing. [8]
b) What are digital image data formats? Explain. [7]
- 3 a) Explain the various elements of visual interpretations. [8]
b) What is image classification? Explain. [7]
- 4 a) Explain the term 'GIS'. What are the applications of GIS? [8]
b) Describe GIS in the context of information structure. [7]
- 5 a) What do you understand by spatial, thematic and temporal dimension of geographic data? Explain. [8]
b) Explain the 'Vector data Models'. [7]
- 6 a) What is 'Geographical data analysis'? Why is it required? What are the various geospatial analysis techniques? [8]
b) Explain 'Overlay using a decision table'. [7]
- 7 a) Explain the applications of RS and GIS in forestry. [8]
b) What are the applications of RS and GIS in urban areas? Explain. [7]
- 8 a) What are the applications of RS and GIS in flood zone delineation? Explain. [8]
b) How can RS and GIS be applied for reservoir storage estimation? Explain. [7]