

Code No: **RT41015**

R13

Set No. 1

IV B.Tech I Semester Supplementary Examinations, March – 2017

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) Discuss the salient features of IRS – 1C. [4]
- b) Explain False colour composite. [4]
- c) What is Normalization? [3]
- d) What are conditional expressions? [4]
- e) List out various applications of remote sensing and GIS in agriculture sector. [3]
- f) Write short notes on applications of remote sensing in Artificial ground recharge. [4]

PART-B (3x16 = 48 Marks)

2. a) Explain in detail about the concept of resolution and discuss in detail spatial and radiometric resolutions. [8]
- b) Write short notes on
 - i) Geo Synchronous satellites
 - ii) Passive Remote Sensing [8]
3. Describe the importance of image classification in Remote Sensing. Explain briefly the categories of image classifications used and distinguished among each other. [16]
4. Discuss the data structures used in GIS. [16]
5. a) Discuss the errors in GIS. [8]
- b) Explain overlay using decision table in GIS. [8]
6. How Remote Sensing and GIS is useful in Land resources management. Explain with suitable examples. [16]
7. a) Discuss the role of remote sensing and GIS in Rainwater harvesting. [8]
- b) Discuss the role of remote sensing and GIS in Rainfall – Runoff modeling. [8]