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

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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]