CBCS SCHEME



USN | | | | | | | | | | |

15CV563

# Fifth Semester B.E. Degree Examination, June/July 2019
## Remote Sensing and GIS

Time: 3 hrs. Max. Marks: 80

***Note: Answer any FIVE full questions, choosing ONE full question from each module.***



### Module-1

1 a. Define Remote Sensing. State advantages and disadvantages of remote sensing. **(08 Marks)**
b. Explain in detail about energy interaction with atmosphere and earth surface. **(08 Marks)**

**OR**

2 a. State and explain the elements of visual image interpretation. **(08 Marks)**
b. With a neat sketch explain electromagnetic spectrum. **(08 Marks)**

### Module-2

3 a. What is resolution of a sensor? Describe all sensor resolutions. **(10 Marks)**
b. Write notes on: SPOT, IKONOS and IRS. **(06 Marks)**

**OR**

4 a. Write notes on: Systematic correction method and image filtering. **(10 Marks)**
b. Explain the different types of platforms used in Remote Sensing. **(06 Marks)**

### Module-3

5 a. Define GIS. Describe the key components of GIS. **(08 Marks)**
b. Write a note on: Classification of maps and map scales. **(08 Marks)**

**OR**

6 a. What is a map projection? Explain the different types of map projections with their characteristics. **(08 Marks)**
b. What do you understand by spatial data and attribute data? How are they integrated to make a GIS? **(08 Marks)**

### Module-4

7 a. What are Raster and Vector? Write the basic difference between them. **(08 Marks)**
b. Explain run length encoding and chain encoding. **(08 Marks)**

**OR**

8 a. What things can be represented by point, line and polygon? Explain field based vector model. **(08 Marks)**
b. Explain spaghetti model and vertex dictionary model. **(08 Marks)**

### Module-5

9 a. How remote sensing and GIS is used in change detection study? **(08 Marks)**
b. Explain the application of remote sensing in water resource management. **(08 Marks)**

**OR**

10 a. Explain the application of RS and GIS in natural resource management. **(08 Marks)**
b. Explain the application of RS and GIS in urban planning and traffic management. **(08 Marks)**

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