

# CBCS SCHEME



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21CV651

**Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025**

## **Remote Sensing and GIS**

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. With a neat sketch, explain the components of remote sensing. (10 Marks)
- b. Explain the key elements of visual interpretation. (10 Marks)

**OR**

- 2 a. With a neat sketch explain the electromagnetic spectrum. (10 Marks)
- b. Enumerate the types of sensors and platforms. (10 Marks)

### Module-2

- 3 a. Explain photogrammetry with its types and advantages. (10 Marks)
- b. Explain the process of aerial photogrammetry. (10 Marks)

**OR**

- 4 a. With a neat sketch explain the geometry and scale of vertical photograph. (10 Marks)
- b. Enumerate the process of flight planning and its importance. (10 Marks)

### Module-3

- 5 a. Define GIS and explain the components of GIS. (10 Marks)
- b. Explain the types of database along with its advantages and disadvantages. (10 Marks)

**OR**

- 6 a. Explain the components of GPS and its working principles. (10 Marks)
- b. Explain briefly the map projections and its types. (10 Marks)

### Module-4

- 7 a. Explain the applications of remote sensing and GIS in highway alignment. (10 Marks)
- b. Explain the applications of remote sensing and GIS in solving the environmental issues. (10 Marks)

**OR**

- 8 a. Explain the application of remote sensing and GIS in road accident analysis. (10 Marks)
- b. Explain the application of remote sensing and GIS in water resource management. (10 Marks)

### Module-5

- 9 a. Explain the application of remote sensing, GIS and GPS in urban planning. (10 Marks)
- b. Explain the application of remote sensing and GIS in land use and land cover mapping. (10 Marks)

**OR**

- 10 a. Explain the application of GIS, remote sensing and GPS in Disaster Management. (10 Marks)
- b. Explain the application of remote sensing and GIS in analysis and improving the crop yield. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

