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21CV651

Sixth Semester B.E. Degree Examination, June/July 2024 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. Define Remote Sensing and Explain its components with a neat sketch. (10 Marks)
b. What is spectral reflectance and explain the spectral reflectance curves on vegetation soil and water. (10 Marks)

OR

- 2 a. Explain the elements of visual interpretation techniques in remote sensing. (10 Marks)
b. Define sensor and its characteristics and also describe different types of sensors. (10 Marks)

Module-2

- 3 a. What are the advantages and disadvantages of photo-grammetry? (10 Marks)
b. What is Relief Displacement on a vertical photograph and explain with example. (10 Marks)

OR

- 4 a. What is Image Acquisition, with a neat diagram? Explain the principal components of a single lens camera. (10 Marks)
b. What is the geometry of vertical photograph and explain the scale of a vertical photograph with an example. (10 Marks)

Module-3

- 5 a. Define GIS. Describe the key components of GIS. (10 Marks)
b. Explain how spatial data and attribute data integrated to make a GIS. (10 Marks)

OR

- 6 a. What is a Map? Explain the classification of a map. (10 Marks)
b. What is GPS and explain the components of GPS? (10 Marks)

Module-4

- 7 a. Explain the significance of GIS in Road accident analysis. (10 Marks)
b. Explain the applications of Remote sensing and GIS in Water Resource Management. (10 Marks)

OR

- 8 a. Explain the applications of GIS and Remote Sensing in traffic management. (10 Marks)
b. What are the applications of Remote Sensing and GIS in Environmental Engineering Management? (10 Marks)

Module-5

- 9 a. Explain the applications of Remote Sensing and GIS in urban planning. (10 Marks)
b. Explain the following :
(i) Change detection studies. (10 Marks)
(ii) Land use and Land cover (10 Marks)

OR

- 10 a. Describe the methods of setting out water distribution system layout. (10 Marks)
b. Explain the applications of Remote Sensing and GIS in Disaster Management. (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.

