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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.
      (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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