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Fifth Semester B.E. Degree Examination

f 2020

Remote Sensing and GIS

Time: 3 hrs.

Max. Marks: 100

Note: Answer HIE full questions, choosing ONE full question from each module.

Module-1

- I a. With a neat sketch, explain the process of remote sensing. (10 Marks)
- h. Briefly explain how energy interactions with earth features, i.e. soil and vegetation occurs in remote sensing. (10 Marks)

OR

- 2 a. What is visual interpretation technique? List and explain in brief the elements of visual interpretation techniques. (10 Marks)
- b. With neat sketch, explain the electromagnetic spectrum with its wavelengths. (10 Marks)

Module-2

- 3 a. Briefly explain Remote Sensing and Landsat satellites with their series and characteristics. (10 Marks)
- b. Define resolution and explain the types of resolutions. (10 Marks)

OR

- 4 a. What are the types of errors in remote sensing? Explain them briefly. (10 Marks)
- b. Explain in detail the image enhancements and image filtering techniques used in remote sensing. (10 Marks)

Module-3

- 5 a. What are the components of GIS? Explain in brief the various components. (10 Marks)
- b. Explain the process of joining spatial and attribute data in GIS. (10 Marks)

OR

- 6 a. With figure, explain the UTM zones used in GIS. (10 Marks)
- b. What are map projections? Explain the various map projection methods in brief. (10 Marks)

Module-4

- 7 a. Explain briefly the representation of various features in raster data structures. (10 Marks)
- b. Explain the comparison of raster data and vector data models with traditional advantages and disadvantages. (10 Marks)

OR

- 8 a. List and explain the different types of raster data models. (10 Marks)
- b. Define topology and explain its importance in GIS with advantages and disadvantages. (10 Marks)

Module-5

- 9 a. Briefly explain the importance of integration of remote sensing and GIS. (10 Marks)
- b. Explain the application of remote sensing in traffic management. (10 Marks)

OR

- 10 a. What are the applications of remote sensing in land use / land cover analysis? Briefly explain. (10 Marks)
- b. Explain the application of remote sensing and GIS in environmental and urban planning. (10 Marks)

Important Note