

CBCS SCHEME

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15TE72

Seventh Semester B.E. Degree Examination, Jan./Feb. 2021 Satellite Communication and Remote Sensing

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the main components of remote sensing with neat diagram. (08 Marks)
b. Explain briefly the milestones in remote sensing observation. (08 Marks)

OR

- 2 a. Explain international space law. (08 Marks)
b. Explain the historical background of remote sensing systems. (08 Marks)

Module-2

- 3 a. Explain the major spectral bands within the electromagnetic spectrum. (08 Marks)
b. Explain main factors affecting spectral signature. (08 Marks)

OR

- 4 a. Explain the thermal properties of soil vegetation and thermal signature. (08 Marks)
b. Explain the electromagnetic laws with relevant expressions. (08 Marks)

Module-3

- 5 a. Define resolution of a sensor system. Briefly describe different types of resolutions. (08 Marks)
b. Distinguish between passive and active sensors used in remote sensing. (08 Marks)

OR

- 6 a. With the help of neat diagram, explain the principle of radar and lidar with respect to remote scanning. (08 Marks)
b. Explain the importance of satellite remote sensing missions. (08 Marks)

Module-4

- 7 a. Explain the various constraints in using remote sensing data. (08 Marks)
b. Describe the organization of remote sensing projects. (08 Marks)

OR

- 8 a. With the help of a neat diagram explain the generalized procedure for interpretation of remote sensing imagery. (08 Marks)
b. Explain the different approaches to interpret digital values acquired. (08 Marks)

Module-5

- 9 a. With the help of a neat diagram, explain hierarchical organization of visual interpretation criteria. (08 Marks)
b. Explain how shadows help in object recognition with the help of a neat diagram. (08 Marks)

OR

- 10 a. Explain color composite and temporal approaches in remote sensing. (08 Marks)
b. Explain feature identification in respect of visual interpretation (08 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.