

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**Regular End Semester Examination – Summer 2022****Course: B. Tech. Branch : Civil Engineering Semester : VIIIth Semester****Subject Code & Name: BTCESS802C Remote Sensing Essentials****Max Marks: 60****Date: 07/07/2022****Duration: 3.45 Hr.****/Instructions to the Students:/**

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

(Level/CO) Marks

Q. 1 Solve Any Two of the following.

- A) What are the different types of electromagnetic waves used in remote sensing? 6
- B) Explain detailed process of remote sensing with a neat labeled diagram. 6
- C) Elaborate on the differences between spatial resolution and spectral resolution. 6

Q.2 Solve Any Two of the following.

- A) Explain Planks Law for study of radiation and its applications in remote sensing. 6
- B) Explain different applications of Passive Microwave Remote Sensing. 6
- C) Explain the difference between multi-layered and multispectral images. 6

Q. 3 Solve Any Two of the following.

- A) Write short notes on various image enhancement techniques. 6
- B) Write short notes on georeferencing of images. 6
- C) Explains various types of Image Histograms with their characteristic features. 6

Q.4 Solve Any Two of the following.

- A) Explain in detail about workings of LiDAR system. 6
- B) What is the difference between Unsupervised classification and Supervised classification of digital images? 6
- C) What are the major characteristic features of Hyperspectral Remote Sensing technique and its applications? 6

Q. 5 Solve Any Two of the following.

- A) What are the limitations of high spatial resolution satellite images? 6
- B) What are the applications of Remote Sensing in Earthquake Studies? 6
- C) What are the limitations of Remote Sensing? 6

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