

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.

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|---|---|
| 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.

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|--|---|
| 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.

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|--|---|
| 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 |

***** End *****