



Roll No

**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

MID TERM EXAMINATION- AUGUST 2024

Semester & AY: Odd Semester: 2023-24

Course Code: CIV827

Course Name: Advanced Applications of Remote Sensing in Environmental Monitoring and Disaster Management

Program & Sem: PhD, II Sem

Date: 12-08-2024

Time: 02.00pm to 03.30pm

Max Marks: 50

Weightage: 25%

Instructions:

- (i) Read all questions carefully and answer accordingly.
 - (ii) Scientific and Non-programmable calculator permitted
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Part A

Answer any three Questions.

(3Qx10M=30M)

1. Explain the electromagnetic spectrum and its significance in remote sensing.

(C.O.No.1)[Comprehension]

2. Describe the various types of sensors used in remote sensing and provide examples of each type and their specific applications.

(C.O.No.1)[Comprehension]

3. Describe the techniques used for image preprocessing in remote sensing.

(C.O.No.1)[Comprehension]

4. Explain how remote sensing techniques are used to monitor crop health in precision agriculture.

(C.O.No.2)[Comprehension]

Part B

Answer any one Question.

(1Qx20M=20M)

5. (a) Explain the process of data acquisition in remote sensing and the factors that influence the choice of data acquisition method. 10M

(C.O.No.1)[Comprehension]

(b) Discuss the various image classification techniques used in remote sensing and provide examples of algorithms used in each classification type and their applications. 10M
(C.O.No.1)[Comprehension]

6. (a) Describe the methods used for land use and land cover change detection using remote sensing and list the examples of applications. 10M
(C.O.No.2) [Application]

(b) Discuss the role of remote sensing in forest cover assessment and deforestation monitoring and list the sensors used.10M
(C.O.No.2)[Application]